DR. MARCO TEDESCO

LAMONT RESEARCH PROFESSOR, LAMONT DOHERTY EARTH OBSERVATORY OF THE COLUMBIA UNIVERSITY
ADJUNCT SCIENTIST, NASA GODDARD INSTITUTE OF SPACE STUDIES (GISS)
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Current position and professional experience

2023 -	Lecturer	School of Professional Studies, Columbia University
2022 -	Member	New York City Panel on Climate Change, Equity Working Group
2022 - 2022	Lecturer	Columbia Business School, Spring semester
2021 -	Member	Columbia Senate
2021 -	Affiliated Scientist	The Data Science Institute, Columbia University
2021 -	Fellow	The Explorers Club
2020 -	Affiliate Professor	Scuola Superiore Sant'Anna, Pisa, Institute of Economics
2019	Visiting Scientist (July 1st – 14th)	ESA – ESRIN, Frascati, Rome
2016 -	Science journalist	La Repubblica
2015 -	Lamont Research Professor	Columbia University
2015 -	Adjunct Scientist	NASA GISS
2013 – 2015	Program Director	The National Science Foundation
2013 – 2015	Associate Professor	The City College of New York
2012 – 2013	Deputy Executive Officer	The Graduate Center of CUNY
2008 – 2015	Founder and director	Cryosphere Processes Laboratory, CCNY
2008 – 2013	Assistant Professor	The City College of New York
2003 – 2008	Research Assistant	NASA Goddard Space Flight Center
2002	Visiting Scientist	Helsinki University of Technology
2002 -	AGU member	

Education

1999 – 2003	**PhD**	Italian National Research Council (Envir. Engineering)
1989 – 1998	**'Laurea degree'**	University of Naples, Italy (Electrical Engineering)

Research Interests

- Remote sensing of the cryosphere and hydrosphere
- High latitude field measurements (both hemispheres)
- Polar ice sheets, mass balance and ice dynamics
- Ice – ocean – atmosphere interaction
- Cyberinfrastructure
- Communication of scientific results
- Sea level rise and economics
- Impacts of climate change on socially vulnerable classes

Submitted or in preparation

[152] A multi-hazard climate, displacement and socio-vulnerability score for NYC, *Submitted to ERL*

[151] Marco Tedesco, Paolo Colosio, Xavier Fettweis, Guido Cervone, A new computationally efficient statistically downscaled 100 m resolution Greenland product from the regional climate model MAR, in prep. for *ESSD*

[150] Bingkun Luo and Marco Tedesco , High-spatial resolution mapping of surface melting over the Helheim glacier, East Greenland using Sentinel-1, enhanced passive microwave data and regional model outputs, submitted to *Remote Sensing*

Published Papers

[149] T. A. Moon, K. D. Mankoff, R. S. Fausto, X. Fettweis, B. D. Loomis, T. L. Mote, K. Poinar, M. Tedesco, A. Wehrlé, and C. D. Jensen, Greenland Ice Sheet [in Arctic Report Card 2022], https://doi.org/10.25923/c430-hb50

[148] Mankoff K and Tedesco, M. Greenland Ice Sheet mass loss from the last decade is the highest in the last 120 years. Wall Street Journal Open Letter, 2022

[147] Rising, J., Tedesco, M., Piontek, F. *et al.* The missing risks of climate change. *Nature* **610**, 643–651 (2022). https://doi.org/10.1038/s41586-022-05243-6

[146] M. Tedesco, J. Keenan and C. G. Hultquist, Measuring, Mapping, and Anticipating Climate Gentrification in 103991,ISSN 0264-2751,https://doi.org/10.1016/j.cities.2022.103991.

[145] Benjamin E. Smith, Brooke Medley, Xavier Fettweis, Tyler Sutterley, Patrick Alexander, David Porter, Marco Tedesco , Evaluating Greenland Surface-Mass-Balance and Firn-Densification Data Using ICESat-2 Altimetry, *The Cryosphere* , Accepted

[144] Raf M. Antwerpen, Marco Tedesco, Xavier Fettweis, Patrick Alexander, Willem Jan van de Berg, Assessing Bare Ice Albedo Simulated by MAR over the Greenland Ice Sheet (2000-2021) and Implications for Meltwater Production Estimates, *the Cryosphere, Accepted*

[141] Federico Covi, Regine Hock, Asa Rennermalm, Sasha Leidman, Clement Miege, J. Kingslake, J. Xiao, M. McFerrin and M. Tedesco, 2022. Meteorological and firn temperature data from three weather stations in the percolation zone of southwest Greenland, 2017 - 2019. Arctic Data Center. doi:10.18739/A2BN9X444.

[140] Max Mauerman, Elizabeth Tellman, Upmanu Lall, Marco Tedesco, Paolo Colosio, Mitchell Thomas, Daniel Osgood, and Arifuzzaman Bhuyan , High-Quality Historical Flood Data Reconstruction in Bangladesh Using Hidden Markov Models, Chapter in Water Management: A View from Multidisciplinary Perspectives, https://doi.org/10.1007/978-3-030-95722-3

[139] Tedesco, M., C. Hultquist, S. E. Char, C. Constantinides, T. Galjanic, A. D. Sinha. 2021. Socio-Economic, Physical, Housing, Eviction, and Risk dataset, version 2 (SEPHER 2.0), Preliminary Release. https://doi.org/10.7927/r6yw-xw73. Accessed 02/24/2022

[138] T. A. Moon, M. Tedesco, J. E. Box, J. Cappelen, R. S. Fausto, X. Fettweis, N. J. Korsgaard, B. D. Loomis, K. D. ankoff, T. L. Mote, A. Wehrlé, and Ø. A. Winton, Greenland Ice Sheet [in Arctic Report Card 2021], *DOI: 10.25923/546g-ms61*

[137] M. Navari, S. A. Margulis, M. Tedesco, X. Fettweis, R. S. W. van de Wal, Reanalysis Surface Mass Balance of the Greenland Ice Sheet Along K-Transect (2000–2014), Volume48, Issue17, 8 September 2021, https://doi.org/10.1029/2021GL094602

[136] Preece, J. R., Wachowicz, L. J., Mote, T. L., Tedesco, M., & Fettweis, X. (2022). Summer Greenland blocking diversity and its impact on the surface mass balance of the Greenland ice sheet. *Journal of Geophysical Research: Atmospheres*, 127, e2021JD035489. https://doi.org/10.1029/2021JD035489

[135] P. Colosio, Marco Tedesco and Elizabeth Tellman, Flood Monitoring Using Enhanced Resolution Passive Microwave Data: A Test Case over Bangladesh,Remote Sens. 2022, 14,1180. https://doi.org/10.3390/rs14051180

[134] Cheng Zheng, Mingfang Ting, Yutian Wu, Nathan Kurtz, Clara Orbe, Patrick Alexander, Richard Seager and Marco Tedesco, Turbulent Heat Flux, Downward Longwave Radiation and Large-Scale Atmospheric Circulation Associated with the Wintertime Barents-Kara Sea Extreme Sea Ice Loss Events, Jounral of Climate, https://doi.org/10.1175/JCLI-D-21-0387.1

[133] Colosio, P., Tedesco, M., Ranzi, R., and Fettweis, X.: Surface melting over the Greenland ice sheet derived from enhanced resolution passive microwave brightness temperatures (1979–2019), The Cryosphere, 15, 2623–2646, https://doi.org/10.5194/tc-15-2623-2021, 2021.

[132] A. Ebtehaj, M. Durand and M. Tedesco, "Constrained Inversion of a Microwave Snowpack Emission Model Using Dictionary Matching: Applications for GPM Satellite," in IEEE Transactions on Geoscience and Remote Sensing, vol. 60, pp. 1-14, 2022, Art no. 4302114, doi: 10.1109/TGRS.2021.3115663.

[131] M. Tedesco, C. G. Hultquist, and A. de Sherbinin, A New Dataset Integrating Public Socioeconomic, Physical Risk, and Housing Data for Climate Justice Metrics: A Test-Case Study in Miami, Environmental Justice, 18 Aug,2021https://doi.org/10.1089/env.2021.0059

[130] Boghosian AL, Pitcher LH, Smith LC, Kosh E, Alexander PM, Tedesco M, Bell RE. Development of Ice-Shelf Estuaries Promotes Fractures and Calving. Nat Geosci. 2021 Dec;14:899-905. doi: 10.1038/s41561-021-00837-7. Epub 2021 Dec 3. PMID: 34917170; PMCID: PMC8670399.

[129] J. Francis, T. Scambos and M. Tedesco, How are reduced Arctic sea ice and increased Greenland melting connected?, Arctic, Antarctic, and Alpine Research , Volume 53, 2021 - Issue 1, https://doi.org/10.1080/15230430.2021.1946243

[128] T.Scambos, F.Straneo and M. Tedesco, How fast is the Greenland ice sheet melting?, Arctic, Antarctic, and Alpine Research , Volume 53, 2021 - Issue 1, https://doi.org/10.1080/15230430.2021.1946241

[127] S. Wang, P. Alexander, Q.g Wu, M. Tedesco, So Shu, Characterization of ice shelf fracture features using ICESat-2 – A case study over the Amery Ice Shelf, Remote Sensing of Environment, Volume 255, 2021,112266,ISSN 0034-4257, https://doi.org/10.1016/j.rse.2020.112266.

[126] T. A. Moon, M. Tedesco, K. D. Mankoff, J. E. Box, J. Cappelen, R. S. Fausto, X. Fettweis, N. J. Korsgaard, B. Loomis, T. Mote, C. H. Reijmer, C. J. P. P. Smeets, D. van As, R. S. W. van de Wal, and Ø. A. Winton , Greenland ice sheet – BAMS – NOAA State of the Climate 2020, https://doi.org/10.1175/BAMS-D-21-0086.1 , 2021

[125] Cooper, M. G., Smith, L. C., Rennermalm, A. K., Tedesco, M., Muthyala, R., Leidman, S. Z., Moustafa, S. E., and Fayne, J. V.: Spectral attenuation coefficients from measurements of light transmission in bare ice on the Greenland Ice Sheet, The Cryosphere, 15, 1931–1953, https://doi.org/10.5194/tc-15-1931-2021, 2021.

[124] Law, R., N. Arnold, C. Benedek, M. Tedesco, A. Banwell, and I. Willis, 2020: Over-winter persistence of supraglacial lakes on the Greenland Ice Sheet: Results and insights from a new model. *J. Glaciol.*, 66, no. 257, 362-372, doi:10.1017/jog.2020.7.

[123] Tedesco, M. and Fettweis, X.: Unprecedented atmospheric conditions (1948–2019) drive the 2019 exceptional melting season over the Greenland ice sheet, The Cryosphere, 14, 1209–1223, 2020, https://doi.org/10.5194/tc-14-1209-2020

[122] Wang, S., Tedesco, M., Alexander, P., Xu, M., and Fettweis, X.: Quantifying spatiotemporal variability of ice algal blooms and the impact on surface albedo in southwest Greenland, The Cryosphere, 14, 2687–2713, 2020 https://doi.org/10.5194/tc-14-2687-2020

[121] Mortimer, C., Mudryk, L., Derksen, C., Luojus, K., Brown, R., Kelly, R., and Tedesco, M.: Evaluation of long term Northern Hemisphere snow water equivalent products, The Cryosphere, 14, 1579–1594, 202 https://doi.org/10.5194/tc-14-1579-2020

[120] Fettweis, X., Hofer, S., Krebs-Kanzow, U., Amory, C., Aoki, T., Berends, C. J., Born, A., Box, J. E., Delhasse, A., Fujita, K., Gierz, P., Goelzer, H., Hanna, E., Hashimoto, A., Huybrechts, P., Kapsch, M.-L., King, M. D., Kittel, C., Lang, C., Langen, P. L., Lenaerts, J. T. M., Liston, G. E., Lohmann, G., Mernild, S. H., Mikolajewicz, U., Modali, K., Mottram, R. H., Niwano, M., Noël, B., Ryan, J. C., Smith, A., Streffing, J., Tedesco, M., van de Berg, W. J., van den Broeke, M., van de Wal, R. S. W., van Kampenhout, L., Wilton, D., Wouters, B., Ziemen, F., and Zolles, T.: GrSMBMIP: Intercomparison of the modelled 1980–2012 surface mass balance over the Greenland Ice sheet, The Cryosphere, 14, 3935–3958, 2020, https://doi.org/10.5194/tc-14-3935-2020

[119] Ingo Sasgen, Bert Wouters, Alex S. Gardner, Marco Tedesco, Michalea King, Felix W. Landerer, Christoph Dahle, Return to rapid ice loss in Greenland and record loss in 2019 detected by the GRACE-FO satellites. *Commun Earth Environ* 1, 8 (2020). https://doi.org/10.1038/s43247-020-0010-1

[118] T. A. Moon, M. Tedesco, J. E. Box, J. Cappelen, R. S. Fausto, X. Fettweis, N. J. Korsgaard, B. Loomis, K. D. Mankoff, T. Mote, C. H. Reijmer, C. J. P. P. Smeets, D. van As, and R. S. W. van de Wal : Greenland Ice Sheet [in Arctic Report Card 2020], https://www.arctic.noaa.gov/Report-Card, *DOI: 10.25923/ms78-g612*

[117] Ballinger, TJ, Hanna, E, Hall, RJ, *et al*. The role of blocking circulation and emerging open water feedbacks on Greenland cold-season air temperature variability over the last century. *Int J Climatol*. 2021; 41 (Suppl. 1): E2778– E2800. https://doi.org/10.1002/joc.6879

[116] T. A. Moon, M. Tedesco, J. K. Andersen, J. E. Box, J. Cappelen, R. S. Fausto, X. Fettweis, B. Loomis, K. D. Mankoff, T. Mote, C. H. Reijmer, C. J. P. P. Smeets, D. van As, R. S. W. van de Wal, and Ø. Winton, Greenland ice sheet – BAMS – NOAA State of the Climate 2019, https://doi.org/10.1175/2020BAMSStateoftheClimate.1, 2020

[115] The Hidden light of ice, Editorial on Pioneer Works. https://pioneerworks.org/broadcast/marco-tedesco-hidden-light-of-ice/

[114] Tedesco, M., McAlpine, S., and Porter, J.: Exposure of properties to the 2018 Hurricane Florence flooding: an expanding bull's-eye perspective, Natural Hazards and Earth System Sciences Discussions, DOI: 10.5194/nhess-2019-209, 2019.

[113] M. Tedesco, J. E. Bo, J. Cappele, R. S. Faust, X. Fettweis, J. K. Andersen, T. Mote, C. J. P. P. Smeets, D. van A, R. S. W. van de Wal, 2019: Greenland Ice Sheet [in Arctic Report Card 2019], https://www.arctic.noaa.gov/Report-Card.

[112] Nusbaumer, J. N., Alexander, P. M., LeGrande, A. N., and Tedesco, M. (2019) Spatial shift of moisture sources over Greenland related to enhanced Arctic warming, *Geophysical Research Letters,* 46, doi: 10.1029/2019GL084633

[111] M. Tedesco, J. E. Box, J. Cappelen, R. S. Fausto, X. Fettweis, J. K. Andersen, T. Mote, C. J. P. P. Smeets, D. van As, and R. S. W. van de Wal, Greenland ice sheet – BAMS – NOAA State of the Climate 2018, https://doi.org/10.1175/2019BAMSStateoftheClimate.1, 2019

[110] Alexander, P. M., M. Tedesco, L. Koenig, and X. Fettweis. (2019) Evaluating a regional climate model simulation of Greenland ice sheet snow and firn density for improved surface mass balance estimates, *Geophysical Research Letters*, 46. doi: 10.1029/2019GL084101

[109] M. Tedesco, Op-ed: The Beauty of Greenland's Ice Sheet and Why It's Disappearing, **https://www.pbs.org/wnet/peril-and-promise/2019/10/marco-tedesco-greenland-ice-sheet/**

[108] Ruth DeFries, Ottmar Edenhofer, Alex Halliday, Geoffrey Heal, Timothy Lenton, Michael Puma, James Rising, Johan Rockström, Alex C. Ruane, Hans Joachim Schellnhuber, David Stainforth, Nicholas Stern, Marco Tedesco, Bob Ward , London School of Economics Report, Sept, 20th 2019.The missing economic risks in assessments of climate change impacts

[107] Castelao, R. M., Luo, H., Oliver, H.,Rennermalm, A. K., Tedesco, M.,Bracco, A., et al (2019). Controls on the transport of meltwater from the southern Greenland ice sheet in the Labrador Sea. Journal of Geophysical Research: Oceans, 124. https://doi.org/ 10.1029/2019JC015159

[106] Datta, R. T., Tedesco, M., Fettweis, X., Agosta, C., Lhermitte, S., Lenaerts, J. T. M., & Wever, N. (2019). The effect of Foehn-induced surface melt on firn evolution over the northeast Antarctic peninsula. *Geophysical Research Letters*, 46, 3822– 3831. https://doi.org/10.1029/2018GL080845

[105] Oltmanns, M., Straneo, F., and Tedesco, M.: Increased Greenland melt triggered by large-scale, year-round cyclonic moisture intrusions, The Cryosphere, 13, 815-825, https://doi.org/10.5194/tc-13-815-2019, 2019.

[104] Alexander, P. M., LeGrande, A. N., Fischer, E., Tedesco, M., Fettweis, X., Kelley, M., Nowicki, S. M. J., & Schmidt, G. A. (2019). Simulated Greenland surface mass balance in the GISS ModelE2 GCM: Role of the ice sheet surface. Journal of Geophysical Research: Earth Surface, 124. https:// doi.org/10.1029/2018JF004772

[103] Yang, K., L. C. Smith, L. Karlstrom, M. Cooper, M. Tedesco, D. van As, X. Cheng, Z. Chen, and M. Li.: A new surface meltwater routing model for use on the Greenland Ice Sheet surface , The Cryosphere, 12, 3791-3811, https://doi.org/10.5194/tc-12-3791-2018, 2018.

[102] M. Tedesco1,2, J. E. Box3, J. Cappelen4, R. S. Fausto3, X. Fettweis5, J. K. Andersen3, T. Mote6, C. J. P. P. Smeets7, D. van As3, R. S. W. van de Wal7, 2018: Greenland Ice Sheet [in Arctic Report Card 2018], https://www.arctic.noaa.gov/Report-Card.

[101] Wang, S., Tedesco, M., Xu, M., & Alexander, P. M. (2018). Mapping ice algal blooms in southwest Greenland from space. Geophysical Research Letters, 45. https://doi.org/10.1029/ 2018GL080455

[100] Datta, R. T., Tedesco, M., Agosta, C., Fettweis, X., Kuipers Munneke, P., and van den Broeke, M. R.: Melting over the northeast Antarctic Peninsula (1999–2009): evaluation of a high-resolution regional climate model, The Cryosphere, 12, 2901-2922, https://doi.org/10.5194/tc-12-2901-2018, 2018.

[99] M. Tedesco, J. E. Box, J. Cappelen, R. S. Fausto, X. Fettweis, K. Hansen, M. S. Khan, S. Luthcke, T. Mote, I. Sasgen, C. J. P. P. Smeets, D. van As, R. S. W. van de Wal, and I. Velicogna, 2018: Greenland ice sheet [in "State of the Climate in 2017"]. Bull. Amer. Meteor. Soc., 99 (8), S152–S156, doi:10.1175/2018BAMSStateoftheClimate.1.

[98] Navari, M., Margulis, S. A., Tedesco, M., Fettweis, X., & Alexander, P. M. (2018). Improving Greenland surface mass balance estimates through the assimilation of MODIS albedo: A case study along the K-transect. Geophysical Research Letters, 45. https://doi.org/ 10.1029/2018GL078448

[97] Heilig, A., Eisen, O., MacFerrin, M., Tedesco, M., and Fettweis, X.: Seasonal monitoring of melt and accumulation within the deep percolation zone of the Greenland Ice Sheet and comparison with simulations of regional climate modeling, The Cryosphere, 12, 1851-1866, https://doi.org/10.5194/tc-12-1851-2018, 2018.

[96] Berdahl, M., A. Rennermalm, A. Hammann, J. Mioduszweski, S. Hameed, M. Tedesco, J. Stroeve, T. Mote, T. Koyama, and J.R. McConnell, 2018: Southeast Greenland Winter Precipitation Strongly Linked to the Icelandic Low Position. *J. Climate,* 31, 4483–4500, https://doi.org/10.1175/JCLI-D-17-0622.1

[95] Oliver, H., Luo, H., Castelao, R. M., van Dijken, G. L., Mattingly, K. S., Rosen, J. J., et al. (2018). Exploring the potential impact of Greenland meltwater on stratification, photosynthetically active radiation, and primary

production in the Labrador Sea. Journal of Geophysical Research: Oceans, 123, 2570- 2591. https://doi.org/10.1002/2018JC013802

[94] Tedesco, M., J. E. Box, J. Cappelen, R. S. Fausto; X. Fettweis, K. Hansen, T. Mote, I. Sasgen, C. J. P. P. Smeets, D. van As, R. S. W. van de Wal, and I. Velicogna, 2017: Greenland Ice Sheet [in Arctic Report Card 2017], https://www.arctic.noaa.gov/Report-Card.

[93] Arrigo, K.R., van Dijken G.L., Castelao R.M., Luo H., Rennermalm A.K., Tedesco M., Mote, T.L., Oliver H., Yager P L. "Melting glaciers stimulate large summer phytoplankton blooms in southwest Greenland waters." Geophys Res Lett . 44. 12 (2017): 62786285.

[92] Tedesco, M; Box, J E; Cappelen, J; Fausto R S; Fettweis, X; Hansen, K;Mote, T; Sasgen, I; Smeets, C; van As, D; van de Wal R S W; Velicogna I. "Greenland Ice Sheet ." Arctic Report Card. 2226. (2017)

[91] Miles, K E; Willis, I; Benedek, C; Williamson, A G; Tedesco, M. "Toward Monitoring Surface and Subsurface Lakes on the Greenland Ice Sheet Using Sentinel1 SAR and Landsat8 OLI Imagery." Frontiers In Earth Sciences. 5. 58. (2017)

[90] van den Broeke, M; Box J; Fettweis, X; Hanna, E; Noël, B; Tedesco, M; van As, D; van de Berg, W J; van Kampenhout, L. "Greenland Ice Sheet Surface Mass Loss: Recent Developments in Observation and Modeling." Curr Clim Change Rep. 3. 4 (2017): 345356.

[89] Stroeve J C; Mioduszewski J R; Rennermalm A; Boisvert L; Tedesco M; Robinson D. "Investigating the localscale influence of sea ice on Greenland surface melt." The Cryosphere. 11: 23632381.(2017)

[88] Casey, K.A., Polashenski, C., Chen, J., Tedesco, M. "Impact of MODIS sensor calibration updates on Greenland Ice Sheet surface reflectance and albedo trends." The Cryosphere. 11. NA (2017): 1781 1795.

[87] Tedesco, M; Box, J E; Cappelen, J; Fausto R S; Fettweis, X; Hansen, K;Mote, T; Sasgen, I; Smeets, C; van As, D; van de Wal R S W; Velicogna I. "Greenland Ice Sheet in [State of the Arctic 2016]." Bull Amer Meteor Soc . 98. 8 (2017): S136S140.

[86] Smith, L.C., Yang, K., Pitcher, L.H., Overstreet, B.T., Chu, V., Rennermalm, A.K., Ryan, J. C., Cooper, M G., Gleason, C. J., Tedesco, M., Jeyaratnam, J., van As, D., van den Broeke, M.R., van de Berg, W.J., Noël, B., Langen, P.L., Cullather, R.I., Zhao, B., Willis, M.J., Hubbard, A., Box, J.E., Jenner, B.A., Behar A.E. "Direct measurements of Greenland meltwater runoff." Proceedings of the National Academy of Sciences. 114. 50 (2017): 1062210631

[85] Bell, R. E., Chu, W., Kingslake, J., Das, I., Tedesco, M., Tinto, K.J., Zappa, C.J., Frezzotti, M., Boghosian, A., Lee, W.S. "Antarctic ice shelf potentially stabilized by export of meltwater in surface river." Nature. 544. (2017): 344348.

[84] M. Tedesco, J. E. Box, J. Cappelen, R. S. Fausto, X. Fettweis, T. Mote, C. J. P. P. Smeets, D. van As, I. Velicogna, R. S. W. van de Wal, J. Wahr, Greenland Ice Sheet, (2016) [in *2016 NOAA Arctic Report Card*]

[83] M. Tedesco and J. Jeyaratnam, A new operational snow retrieval algorithm applied to historical AMSR-E Brightness Temperatures, *Remote Sens.* 2016, *8*, 1037; doi:10.3390/rs8121037

[82] Tedesco M., Mote T., Fettweis X., Hanna E., J. Jeyaratnam, Booth J., R Datta R. and K. Briggs, Arctic cut-off high of a new Greenland melting record, Nat. Comm.. , 7: 11723, dot: 10.1038/ncomms11723,

[81] Alexander, P. M., Tedesco, M., Fettweis, X., van de Wal, R. S. W., Smeets, C. J. P. P., and van den Broeke, M. R.: Assessing spatio-temporal variability and trends in modelled and measured Greenland Ice Sheet albedo (2000–2013), The Cryosphere, 8, 2293-2312, doi:10.5194/tc-8-2293-2014, 2014.

[80] SanClements, M., Smith, H., Foreman, C., Tedesco, M., Chin, Y., Jaros, C., & McKnight, D. (2017). Biogeophysical properties of an expansive Antarctic supraglacial stream, Antarctic Science, 29 (1), 33-44. doi:10.1017/S0954102016000456

[79] Hao Luo, Renato M. Castelao, Asa K. Rennermalm, Marco Tedesco, Annalisa Bracco, Patricia L. Yager, Thomas L. Mote, The Fate of Freshwater from Greenland Ice Sheet Melting in the Ocean, *Nature Geoscience* (2016) doi:10.1038/ngeo2708

[78] Mahsa S. Moussavi, Waleed Abdalati, Allen Pope, Ted Scambos, Marco Tedesco, Michael MacFerrin, and Shane Grigsby, Spaceborne derivation and validation of supraglacial water volumes along the western margin of the Greenland ice sheet, *Remote sensing of Environment*, Volume 183, 15 September 2016, Pages 294–303

[77] Navari, M., Margulis, S. A., Bateni, S. M., Tedesco, M., Alexander, P., and Fettweis, X.: Feasibility of improving a priori regional climate model estimates of Greenland ice sheet surface mass loss through assimilation of measured ice surface temperatures, The Cryosphere, 10, 103-120, doi:10.5194/tc-10-103-2016, 2016.

[76] Pope, A., Scambos, T. A., Moussavi, M., Tedesco, M., Willis, M., Shean, D., and Grigsby, S.: Estimating supraglacial lake depth in West Greenland using Landsat 8 and comparison with other multispectral methods, The Cryosphere, 10, 15-27, doi:10.5194/tc-10-15-2016, 2016.

[75] Alexander, P. M., Tedesco, M., Schlegel, N.-J., Luthcke, S. B., Fettweis, X., and Larour, E.: Greenland Ice Sheet seasonal and spatial mass variability from model simulations and GRACE (2003–2012), The Cryosphere, 10, 1259-1277, doi:10.5194/tc-10-1259-2016, 2016.

[74] Koenig, L. S., Ivanoff, A., Alexander, P. M., MacGregor, J. A., Fettweis, X., Panzer, B., Paden, J. D., Forster, R. R., Das, I., McConnell, J. R., Tedesco, M., Leuschen, C., and Gogineni, P.: Annual Greenland accumulation rates (2009–2012) from airborne snow radar, The Cryosphere, 10, 1739-1752, doi:10.5194/tc-10-1739-2016, 2016.

[73] Tedesco, M., Doherty, S., Fettweis, X., Alexander, P., Jeyaratnam, J., and Stroeve, J.: The darkening of the Greenland ice sheet: trends, drivers, and projections (1981–2100), The Cryosphere, 10, 477-496, doi:10.5194/tc-10-477-2016, 2016.

[72] Mioduszewski, J. R., A. K. Rennermalm, A. Hammann, M. Tedesco, E. U. Noble, J. C. Stroeve, and T. L. Mote (2016), Atmospheric drivers of Greenland surface melt revealed by self-organizing maps, J. Geophys. Res. Atmos., 121, doi:10.1002/2015JD024550.

[71] M. Tedesco, J. E. Box, J. Cappelen, X. Fettweis, T. S. Jensen,T. Mote, A. K. Rennermalm, L. C. Smith, R. S. W. van de Wal, J. Wahr, *Greenland Ice Sheet,* [in "State of the Climate in 2015"]. *Bull. Amer. Meteor. Soc.*, 97 (8)].

[70] M. Tedesco, J. E. Box, J. Cappelen, R. S. Fausto, X. Fettweis, T. Mote,C. J. P. P. Smeets, D. van As, , R. S. W. van de Wal8, J. Wahr, Greenland Ice Sheet, (2015) [in *2015 NOAA Arctic Report Card*]

[69] Tedesco, M., S. Doherty, W. Warren, M. Tranter, J. Stroeve, X. Fettweis, and P. Alexander (2015), What darkens the Greenland Ice Sheet?, Eos, 96, doi:10.1029/2015EO035773.

[68] Laurence C. Smith, Vena W. Chu, Kang Yang, Colin J. Gleason, Lincoln H. Pitcher, Asa K. Rennermalm, Carl J. Legleiter, Alberto E. Behar, Brandon T. Overstreet, Samiah E. Moustafa, Marco Tedesco, Richard R. Forster, Adam L. LeWinter, David C. Finnegan,Yongwei Sheng, James Balog, Efficient meltwater drainage through supraglacial streams and rivers on the southwest Greenland ice sheet, Proceedings of the National Academy of Sciences, Vol. 112, No. 4, 2015

[67] P. Alexander, M. Tedesco, X. Fettweis, C.J.P.P. Smeets, R.S.W. van de Wal, Assessing spatio-temporal variability and trends of modeled and measured albedo over Greenland (2000-2012), The Cryosphere, 8, 2293–2312, 2014

[66] M. Tedesco, J. E. Box, J.Cappelen, X. Fettweis, T. Mote, A. K. Rennermalm, R. S. W. van de Wal and J. Wahr, (2014), Greenland Ice Sheet in [*2013 NOAA Arctic Report Card*]

[65] C. J. Legleiter, M. Tedesco, L. C. Smith, A. Behar and B. T. Overstreet (2014), Mapping the bathymetry of supraglacial lakes and streams on the Greenland Ice Sheet using field measurements and high resolution satellite images, *The Cryosphere*, 8, 215-228

[64] N. Steiner and M. Tedesco (2014), A Wavelet Melt Detection Algorithm Applied to Enhanced Resolution Scatterometer Data over Antarctica (2000-2009), *The Cryosphere*, 8, 25 – 40, doi:10.5194/tc-8-25-2014

[63] M. Tedesco, P. Alexander, J. E. Box, J. Cappelen, N. T. Knudsen, T. Mote, K. Steffen, R.S.W. van de Wal, J. Wahr and B. Wouters (2013), Greenland ice sheet section – in [Blunden, Jessica, Derek S. Arndt, 2013: State of the Climate in 2012. *Bull. Amer. Meteor. Soc.*, 94, S1–S258. doi: http://dx.doi.org/10.1175/2013BAMSStateoftheClimate.1]

[62] J. E. Box, J. Cappelen, C. Chen, D. Decker, X. Fettweis, D. Hall, E. Hanna, B. V. Jørgensen, N. T. Knudsen, W. H. Lipscomb, S. H. Mernild, T. Mote, N. Steiner, M. Tedesco, R. S. W. van de Wal, J. Wahr (2013), Greenland Ice Sheet in [*2012 NOAA Arctic Report Card*], http://www.arctic.noaa.gov/reportcard.

[61] Tedesco, M., Fettweis, X., Mote, T., Wahr, J., Alexander, P., Box, J. E., and Wouters, B.: Evidence and analysis of 2012 Greenland records from spaceborne observations, a regional climate model and reanalysis data (2013), *The Cryosphere*, 7, 615-630, doi:10.5194/tc-7-615-2013

[60] A. K. Rennermalm, S. E. Moustafa, J. Mioduszewski, V. W. Chu, R. R. Forster, B. Hagedorn, J. T. Harper, T. L. Mote, D. A. Robinson, C.S. Shuman, L. C. Smith, M. Tedesco (2013), Understanding Greenland ice sheet hydrology using an integrated multi-scale approach, *Environ. Res. Lett.* 8 015017

[59] M. Tedesco and X. Fettweis (2013), 21st century projections of surface mass balance changes for major drainage systems of the Greenland ice sheet, *Environ. Res. Lett.* 7 045405

[58] Fettweis, X., Franco, B., Tedesco, M., van Angelen, J. H., Lenaerts, J. T. M., van den Broeke, M. R., and Gallée, H.: Estimating the Greenland ice sheet surface mass balance contribution to future sea level rise using the regional atmospheric climate model MAR (2013), *The Cryosphere*, 7, 469-489

[57] Barrand, N. E., D. G. Vaughan, N. Steiner, M. Tedesco, P. Kuipers Munneke, M. R. van den Broeke, and J. S. Hosking (2013), Trends in Antarctic Peninsula surface melting conditions from observations and regional climate modeling, *J. Geophys. Res. Earth Surf.*, 118, 315–330, doi:10.1029/2012JF002559.

[56] M. Tedesco, I. Willis, M. Hoffman, A. Banwell, P. Alexander and N. Arnold, Ice dynamic response to two modes of surface lake drainage on the Greenland ice sheet, *Environ. Res. Lett*. 8 (2013) 034007 (9pp)

[55] Nghiem, S. V., D. K. Hall, T. L. Mote, M. Tedesco, M. R. Albert, K. Keegan, C. A. Shuman, N. E. DiGirolamo, and G. Neumann (2012), The extreme melt across the Greenland ice sheet in 2012, *Geophys. Res. Lett*., 39, L20502, doi:10.1029/2012GL053611.

[54] M. Tedesco, C. M. Foreman, J. Anton, N. Steiner and T.Schwartzman, Comparative analysis of West Greenland and McMurdo Dry Valleys (Antarctica) cryoconite (2013), *Annals of Glaciology,* Volume 54, Number 63, July, pp. 147-157(11)

[53] A. F. Banwell, I.C. Willis, N. Arnold, A. Messerli, C. J. Rye, M. Tedesco and A.P. Ahlstrom, Calibration and validation of a high resolution surface mass balance model for Paakitsoq, west Greenland (2012), *Journal of Glaciology*, Vol. 58, No. 212, 2012 doi: 10.3189/2012JoG12J034

[52] Banwell, A. F., Arnold, N., Willis, I., Tedesco, M., and Ahlstrom, A (2012), Modelling supraglacial water routing and lake filling on the Greenland Ice Sheet. *Journal of Geophysical Research - Earth Surface* 117, F0401 doi:10.1029/2012JF002393.

[51] J. E. Box, X. Fettweis, J. C. Stroeve, M. Tedesco, D. K. Hall, and K. Steffen (2012), Greenland ice sheet albedo feedback: thermodynamics and atmospheric drivers, *The Cryosphere*, 6, 821-839

[50] M. Tedesco, J. E. Box, J. Cappellen, T. Mote, R. S. W. van de Wal, and J. Wahr, 2011: [Greenland Ice Sheet] The Arctic [in State of the Climate in 2011]. *Bull. Amer. Meteor. Soc, S148 - S151*

[49] Tedesco, M.; Lüthje, M.; Steffen, K.; Steiner, N.; Fettweis, X.; Willis, I.; Bayou, N.; Banwell, A. (2011), Measurement and modeling of ablation of the bottom of supraglacial lakes in western Greenland , *Geophys. Res. Lett*., Vol. 39, No. 2, L02502 , http://dx.doi.org/10.1029/2011GL049882.

[48] A . Frei, M. Tedesco, S. Lee, D. Hall, J. Foster and R. Kelly (2012), A review and assessment of current-generation satellite-based snow products, in press on the special topical issue of Advances in Space Research (ASR) entitled "Oceanography, Cryosphere, and Freshwater Flux to the Ocean". *Advances in Space Research* 50 (2012) 1007–1029

[47] J. E. Box, J. Cappelen, C. Chen, D. Decker, X. Fettweis, D. Hall, E. Hanna, B. V. Jørgensen, N. T. Knudsen, W. H. Lipscomb, S. H. Mernild, T. Mote, N. Steiner, M. Tedesco, R. S. W. van de Wal, J. Wahr, Greenland Ice Sheet in [2011 *NOAA Arctic Report Card*], http://www.arctic.noaa.gov/reportcard.

[46] Holland, Paul R.; Corr, Hugh F. J.; Pritchard, Hamish D.; Vaughan, David G.; Arthern, Robert J.; Jenkins, Adrian (2011), Tedesco, M.; The air content of Larsen Ice Shelf , *Geophys. Res. Lett*., Vol. 38, No. 10, L10503 , http://dx.doi.org/10.1029/2011GL047245.

[45] M. Tedesco, X. Fettweis, M. R. van den Broeke, R. S. W. van de Wal, C. J. P. P. Smeets, W. J. van de Berg, M.C. Serreze and, J. E. Box, Record summer melt in Greenland in 2010, *AGU EOS*, Vol. 92, 15, April 2011, pp. 126.

[44] M. Tedesco, X. Fettweis, M. R. van den Broeke, R. S. W. van de Wal, C. J. P. P. Smeets, W. J. van de Berg, M.C. Serreze and J. E. Box, The role of albedo and accumulation in the 2010 melting record in Greenland , *Environ. Res. Lett*. 6 014005

[43] M. Tedesco and N. Steiner, In-situ multispectral and bathymetric measurements over a supraglacial lake in western Greenland using a remotely controlled watercraft (2011), *The Cryosphere*, 5, 445-452

[42] X. Fettweis, M. Tedesco, M. van den Broeke, and J. Ettema, Melting trends over the Greenland ice sheet (1958-2009) from spaceborne microwave data and regional climate models (2011), *The Cryosphere*, 5, 359-375

[41] Box J E, Cappelen J, Decker D, Fettweis X, Mote T, Tedesco M and van de Wal R S W 2010, Greenland [in *Arctic Report Card 2010*], 260 in 2010 Arctic Report Card.

[40] Tedesco, M., R. Reichle, A. Loew, T. Markus and J. L. Foster, Dynamic Approaches for Snow Depth Retrieval From Spaceborne Microwave Brightness Temperature (2010), *IEEE Transactions on Geoscience and Remote Sensing*. 48 (4), 1955 – 1967.

[39] M. Tedesco, and P. Narvekar Assessment of the NASA AMSR-E SWE Product (2010), *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing,* 3 (1), 141 – 159.

[38] Tedesco M. and A. Monaghan, Climate and melting variability in Antarctica, *EOS Transactions*, AGU, Vol. 91, No. 1, January 2010.

[37] M. Tedesco (2009), Assessment and development of snowmelt retrieval algorithms over Antarctica from K-band spaceborne brightness temperature (1979–2008), *Remote Sensing of Environment* 113(2009) 979–997.

[36] J. Foster, D. Hall, J. Eylander, G. Riggs, E. J. Kim, M. Tedesco, S. Nghiem, R. Kelly, B. Choudhury (2009), A new blended global snow product using visible, microwave and scatterometer satellite data, *International Journal of Remote Sensing*, vol. 32, issue 5, pp. 1371-1395.

[35] A. Lyapustin, M. Tedesco, Y. Wang, A. Kokhanovsky, Mapping Snow Grain Size over Greenland from MODIS, *Remote Sensing of Environment* (2009), 113, 2009, p 1976 – 1987.

[34] Tedesco M., and A. J. Monaghan (2009), An updated Antarctic melt record through 2009 and its linkages to high-latitude and tropical climate variability, *Geophys. Res. Lett*., 36, L18502, doi:10.1029/2009GL039186.

[33] Tedesco, M., M. Brodzik, R. Armstrong, M. Savoie, and J. Ramage (2009), Pan arctic terrestrial snowmelt trends (1979–2008) from spaceborne passive microwave data and correlation with the Arctic Oscillation, *Geophys. Res. Lett.,* 36, L21402, doi:10.1029/2009GL039672.

[32] Box, J.E., L.-S. Bai, R. Benson, I. Bhattacharya, D.H. Bromwich, J. Cappelen, D. Decker, N. DiGirolamo, X. Fettweis, D. Hall, E. Hanna, T. Mote, M. Tedesco, R. van de Wal, and M. van den Broeke, 2009: Greenland [in "State of the Climate in 2008"]. *Bull. Amer. Meteor. Soc*., 90, S1-S196.

[31] R. Wojcik, K. Andreadis, M. Tedesco, E. Wood, T. Troy and D. Lettenmeier, Multimodel Estimation of Snow Microwave Emission during CLPX 2003 Using Operational Parameterization of Microphysical Snow Characteristics, *Journal of Hydrometeorology*, Volume 9, Issue 6 (December 2008), pp 1491 – 1505.

[30] Amir E. Azar, Hosni Ghedira, Peter Romanov, Shayesteh Mahani, M. Tedesco, and Reza Khanbilvardi, Application of Satellite Microwave Images in Estimating Snow Water Equivalent, JAWRA *Journal of the American Water Resources Association* , Volume 44 Issue 6, Pages 1347 – 1362, January 30, 2008.

[29] M. Tedesco, Updated 2008 surface snowmelt trends in Antarctica, *EOS*, Vol. 89 , No. 13, March 25, 2008.

[28] M. Tedesco, M. Serreze, and X. Fettweis, Diagnosing the extreme surface melt event over southwestern Greenland in 2007, *The Cryosphere*, 2, 159–166, 2008

[27] M. Tedesco and J. Miller, Observations and statistical analysis of combined active–passive microwave space-borne data and snow depth at large spatial scales, *Remote Sensing of Environment*, Volume 111, Issues 2-3, 30 November 2007, Pages 382-397

[26] M. Tedesco and J. Miller, Northern Hemisphere Snow-Covered Area Mapping: Optical Versus Active and Passive Microwave Data, *Geoscience Remote Sensing Letters*, April 2007 Volume: 4, 221 – 225.

[25] J. R. Wang and M. Tedesco, The Atmospheric Corrections on the Estimation of Snow Water Equivalent from AMSR-E Measurements, Remote Sensing of Environment, *Special Issue on Remote Sensing of Cryosphere*, Volume 111, Issues 2-3, 2007.

[24] M.Tedesco and A. Kokhanovsky, The semi-analytical snow retrieval algorithm and its application to MODIS data, *Remote Sensing of Environment,* Volume 111, Issues 2-3, 228 – 241, 2007.

[23] Tedesco M., Snowmelt detection over the Greenland ice sheet from SSM/I brightness temperature daily variations, *Geophys. Res. Lett.,* 34, L02504,doi:10.1029/2006GL028466, January 2007.

[22] Tedesco, M., W. Abdalati, and H. J. Zwally, (2007), Persistent surface snowmelt over Antarctica (1987–2006) from 19.35 GHz brightness temperatures, Geophys. Res. Lett., 34, L18504, doi:10.1029/2007GL031199.

[21] M. Tedesco, 2006 Greenland Ice Sheet Snowmelt From Space-borne Microwave Brightness Temperatures, *EOS Transactions*, EOS, 88, No. 22, May 29, 2007.

[20] M. Tedesco, A new record in 2007 for melting in Greenland, *EOS*, VOl. 88, No. 39, 25 Sept. 2007, p. 383.

[19] M. Tedesco and E. J. Kim, A study on the retrieval of dry snow parameters from radiometric data using a Dense Medium model and Genetic Algorithms, *IEEE Trans on Geosc. and Remote Sensing* Aug. 2006 Volume: 44, Issue: 8, pp: 2143- 2151

[18] M. Tedesco, Edward J Kim, Anthony W. England, Roger de Roo,Janet P. Hardy, Observations and modeling of snow melting/refreezing cycles using a multi-layer dense medium theory-based model, *IEEE Transactions on Geoscience and Remote Sensing*, Vol. 44, No. 12, December 2006

[17] M. Tedesco and Edward J. Kim, Inter-comparison of electromagnetic models for passive microwave remote sensing of snow, in press on IEEE TGARS Special Issue 'IGARSS 2005', Volume 44, Issue 10, Oct. 2006 Page(s): 2654 – 2666

[16] M. Tedesco and J. R. Wang, Atmospheric correction of AMSR-E brightness temperatures for dry snow cover mapping, IEEE Geoscience and Remote Sensing Letters, July 2006,Volume: 3, 3 pp: 320- 324

[15] M. Tedesco and E. Santi, Application of Artificial Neural Networks to multi-temporal SSM/I data for the retrieval of snow parameters (in Italian), Rivista Italiana di Telerilevamento AIT, February 2005

[14] T. Graf, T. Koike, H. Fuji, R. Armstrong, M. Brodzik, M. Tedesco and E.J. Kim, Observation of snow properties, Meteorological forcing and brightness temperature data at the Local Scale Observation Site during the Cold Land Processes Experiment and application to a dense Media Radiative Transfer Model, *Annual Journal of Hydraulic Engineering*, JSCE, Vol. 49, 2005, February

[13] M. Tedesco, E. J. Kim, D. Cline, T. Graf, T. Koike, R. Armstrong, M. Brodzik , J. P. Hardy, Comparison of local scale measured and modeled brightness temperatures and snow parameters from the CLPX 2003 by means of a dense medium radiative transfer theory model , *Hydrological Processes*, Volume 20, Issue 4, Date: 15 March 2006, Pages: 657-672

[12] M. Tedesco, E.J. Kim, A. Gasiewski and B. Stankov, Analysis of multi-scale radiometric data collected during the Cold Land Processes Experiment -1 (CLPX-1), *Geophysical Research Letters*, No. 32, Sept. 2005

[11] M.Tedesco, J. Pulliainen, P. Pampaloni and M. Hallikainen, Artificial neural network based techniques for the retrieval of swe and snow depth from SSM/I data, *Remote Sensing of Environment*, Vol. 90/1, pp 76-85, March 2004

[10] A. Cagnati , A. Crepaz,G. Macelloni, P. Pampaloni, R. Ranzi, M. Tedesco, M. Tomirotti, M. Valt, Study of the snow melting – refreezing cycle using multi – sensor - data and snow modeling, *Journal of Glaciology*, Volume 50, Number 170, June 2004, pp. 419-426(8)

[9] A. Cagnati, A. Crepaz,G. Macelloni, S. Paloscia,P. Pampaloni,R. Ranzi,R. Ruisi,E. Santi, M. Tedesco,M. Tomirotti ,M. Valt and R. Zasso, The Microwave Alpine Snow Melting Experiment (MASMEx 2002), *Rivista Italiana di Telerilevamento* AIT, n.26,27,28-2003, pp 89-99

[8] S.Paloscia, G. Macelloni, E. Santi, M. Tedesco, An application of Artificial Neural Networks for the retrieval of soil moisture profiles by using microwave radiometers, *Rivista Italiana di Telerilevamento* AIT, n.26,27,28-2003, pp 57-63

[7] M.R. Drinkwater, N. Floury and M. Tedesco, L-band Antarctic ice sheet brightness temperatures: Spectral emission modeling, temporal stability and impact of the ionosphere., *Annals of Glaciology* Vol. 39, 2003.

[6] G. Macelloni, S. Paloscia, P. Pampaloni, E. Santi and M. Tedesco, Microwave radiometric measurements of soil moisture in Italy, *Hydrology and Earth System Sciences* Volume 7, Number 6, 2003, SPECIAL ISSUE: Hydrological and meteorological aspects of floods in the Alps, page 937 – 948

[5] M. Tedesco, R. Olmi,A. Ignesti , C. Riminesi , 'Thickness independent measurements of thin samples permittivity in X – band' – *Measurement Science and Technology* , vol. 13, April 2002, pp 503-509

[4] R. Olmi, G. Pelosi, C. Riminesi, M. Tedesco, "ANN application for determing the X-band permittivity of thin materials," *Atti della Fondazione Ronchi*, Anno LVII, 2002, N. 4

[3] R. Olmi, G. Pelosi, C. Riminesi, M. Tedesco, A neural network approach to real-time dielectric characterization of materials, *Microwave and Optical Technology Letters*, Vol. 35, No. 6, December 20, 2002, pp 463 – 465

[2] G. Macelloni, S. Paloscia, P. Pampaloni, M. Tedesco, "Microwave emission from dry snow: a comparison of experimental and model results", *IEEE Trans on Geosc. and Remote Sensing*, Vol. 39, No. 12, Dec. 2001, pp. 2649-2656

[1] G. Macelloni, S. Paloscia, P. Pampaloni, R. Ruisi, M. Tedesco, A. Cagnati, M. Valt, R. Zasso, 'Microwave emission features of snow covers in alpine regions'- AIT – *Rivista Italiana di Telerilevamento* n. 23 – Settembre 2001 – pp 17 – 26

Classes thoughts (most recent):

2019/2020 - Quantifying the Financial Impact of Climate Change – Master in Sustainability Science, Columbia University, Spring

2021 Climate Justice, real estate and vulnerability, Columbia Business School, Spring

2023 Fundamentals of economic and financial impacts of climate change, Sustainability science program , School of Professional Studies, Columbia University

Book chapters

Claire Monteleoni, Gavin A. Schmidt, Francis Alexander, Alexandru Niculescu-Mizil, Karsten Steinhaeuser, Michael Tippett, Arindam Banerjee, M. Benno Blumenthal, Auroop R. Ganguly, Jason E. Smerdon, Marco Tedesco, Climate informatics in *Computational Intelligent Data Analysis for Sustainable Development*, Submitted. To be published in 2012 as a part of "Data Mining and Knowledge Discovery Series" published by the Taylor & Francis. Contributed with section: 10 %.

M. Tedesco, Remote sensing and the cryosphere, in *Remote Sensing of the Cryosphere (M. Tedesco editor),* Wiley and Blackwell, To be published in September 2014

M. Tedesco, Electromagnetic properties of components of the Cryosphere, in *Remote Sensing of the Cryosphere (M. Tedesco editor),* Wiley and Blackwell, To be published in September 2014

M. Tedesco, C. Derksen, J.S. Deems and J.L. Foster, Remote sensing of snow depth and swe, in *Remote Sensing of the Cryosphere (M. Tedesco editor),* Wiley and Blackwell, To be published in September 2014

M. Tedesco, T. Mote, K. Steffen, D.K. Hall and W. Abdalati, Remote sensing of surface and subsurface melting of snow and ice, in *Remote Sensing of the Cryosphere (M. Tedesco editor),* Wiley and Blackwell, To be published in September 2014

H.P. Marshall, B. Hawley and M. Tedesco, Field Measurements for Remote Sensing of the Cryosphere, in *Remote Sensing of the Cryosphere (M. Tedesco editor),* Wiley and Blackwell, Submitted to the publisher

M. Tedesco, T. Parrinello, C. Webb and T. Markus, Remote sensing missions and the Cryosphere, in *Remote Sensing of the Cryosphere (M. Tedesco editor),* Wiley and Blackwell, To be published in September 2014

Books

M. Tedesco (Ed.), Remote sensing and the cryosphere, *Wiley*, January 2015

M. Tedesco and A. Flores d'Arcais, *Ghiaccio,* Ed. Saggiatore, 2019

M. Tedesco and A. Flores d'Arcais, *The hidden life of ice: dispatches from a disappearing world.* The Experiment Publisher, NY, 2020

M. Tedesco and A. Flores d'Arcais, *Jis*, 2022 [Dutch translation of Ice].

M. Tedesco and A. Flores d'Arcais, Der schmelzende Kontinent *[German translation 2023]*

M. Tedesco and A. Flores d'Arcais, Hielo: Viaje por el continente que desaparece *[Spanish translation 2022]*

Selected Published Datasets

Tedesco, M., N. Steiner, and A. Pope (2015): In situ spectral reflectance and depth of a supraglacial lake in Greenland. UCAR/NCAR - CISL - ACADIS. Dataset. http://dx.doi.org/10.5065/D6FQ9TN2

Tedesco, M., M. J. Hoffman, I.C. Willis, P. M. Alexander, A. F. Banwell (2015): Greenland ice velocity during two lake drainage events (June 2011). UCAR/NCAR - CISL - ACADIS. Dataset. http://dx.doi.org/10.5065/D6XP72Z7

Tedesco, M., P. M. Alexander (2015): MODIS (MCD43A3) black sky albedo on the MAR RCM Grid (2000-2012). UCAR/NCAR - CISL - ACADIS. Dataset. http://dx.doi.org/10.5065/D6P55KJZ

Tedesco, M., X. Fettweis, P. M. Alexander (2015): MAR v3.2 regional climate model data for Greenland (1958-2013). UCAR/NCAR - CISL - ACADIS. Dataset. http://dx.doi.org/10.5065/D6JH3J7Z

Tedesco, M., J. Jeyaratnam, and R. Kelly. 2015. NRT AMSR2 Daily L3 Global Snow Water Equivalent EASE-Grids [indicate subset used]. Dataset available online, [https://lance.nsstc.nasa.gov/amsr2-science/data/level3/daysnow/] from NASA LANCE AMSR2 at the GHRC DAAC Huntsville, Alabama, U.S.A. doi: http://dx.doi.org/10.5067/AMSR2/A2_DySno_NRT

Marco Tedesco and Hans Peter Marshall. 2019. Greenland Ice Sheet Summit Camp Snow Density, Grain Size, and Hardness Profiles, June 26-27, 2010. Arctic Data Center. doi:10.18739/A2M03XX3M. https://arcticdata.io/catalog/view/doi:10.18739/A2M03XX3M

Tedesco, M., C. Hultquist, S. E. Char, C. Constantinides, T. Galjanic, A. D. Sinha. 2021. Socio-Economic, Physical, Housing, Eviction, and Risk dataset, version 2 (SEPHER 2.0), Preliminary Release. https://doi.org/10.7927/r6yw-xw73. Accessed 02/24/2022

Selected presentations (orals or posters)

[1] E.Kim, M.Tedesco, R.Kelly, G.Liston, Scaling Behavior of Brightness Temperatures and retrieved Snow Water Equivalent During CLPX, International Geoscience and Remote Sensing Symposium , Seoul, Korea, 25-29 July, 2005 (Invited)

[2] M. Tedesco and Edward J Kim, Inter-comparison of electromagnetic models for passive microwave remote sensing of snow, International Geoscience and Remote Sensing Symposium , Seoul, Korea, 25-29 July, 2005 (Invited)

[3] M. Tedesco and Edward J Kim, Evaluation of electromagnetic models for passive microwave remote sensing of snow, XXVIII General Assembly of International Union of Radio Science (URSI), 23-29 October, 2005, New Delhi, India (Invited)

[4] M. Tedesco and Edward J. Kim, Electromagnetic models for passive microwave remote sensing of snow and application to experimental data, accepted to Progress in Electromagnetics Research Symposium 26-29 March 2006 Cambridge, MA, USA (Invited)

[5] Edward J Kim and M. Tedesco, Spatial Scaling Behavior of Brightness Temperatures During CLPX and Appropriate Satellite Sensor Resolution, Progress in Electromagnetic Research Symposium, 26-29 March 2006 Cambridge, MA, USA (Invited)

[6] M. Tedesco and Edward J. Kim, Application of Artificial Neural Networks and Genetic Algorithms to the retrieval of snow parameters from passive microwave remote sensing data, Progress in Electromagnetic Research Symposium 26-29 March 2006 Cambridge, MA, USA (Invited)

[7] Richard E.J. Kelly, M. Tedesco, Edward J. Kim, James L. Foster, Dorothy K. Hall. Assessing the impact of measurement spatial resolution on passive microwave observations of snow from the Cold Land

Processes Experiment, Progress in Electromagnetic Research Symposium 26-29 March 2006 Cambridge, MA, USA (Invited)

[8] M. Tedesco and Jeff Miller, Combining space-borne active and passive microwave data for remote sensing of snow at global scale, IGARSS'06, Denver, CO, July 26-August 3, 2006, (Invited)

[9] G.Macelloni, S. Paloscia, P. Pampaloni, R. Ruisi, M. Tedesco, A. Cagnati M. Valt, 'Microwave emission of snow in Alpine regions and the detection of surface hoar' , Geoscience and Remote Sensing Symposium, 2000. Proceedings. IGARSS 2000. IEEE 2000 International , Volume: 4 , 2000 Page(s): 1760 -1762 vol.4

[10] G. Macelloni, S. Paloscia, P. Pampaloni, R. Ruisi, M. Tedesco ,A. Cagnati M. Valt,,' Detection of surface hoar with passive microwave sensors' , Proc. Of the Workshop on Advanced Techniques for the Assessment of Natural Hazards in Mountain Areas, 5-7 June-2000, Innsbruck-Igls,Austria, Sept. 2000

[11] S. Paloscia, P. Pampaloni, G. Macelloni, R. Ruisi, E. Santi, M. Tedesco, Multi-frequency microwave radiometry of land surfaces: experiments, models and algorithms.' , COST 712 Final Workshop, Reading,, London , UK , Nov. 2000

[12] G. Macelloni, S. Paloscia, P. Pampaloni, R. Ruisi, M. Tedesco, A. Cagnati, M. Valt: "Microwave emission of snow in Alpine regions"-Atti della 10a Riunione CeTem (Centro Telerilevamento a Microonde) Prato (Po) – 2000

[13] M. Tedesco, G. Macelloni ,P. Pampaloni, , S. Paloscia, ,'Multi-Frequency Microwave Emission from Wet-Snow: a Comparison of Experimental Results and Model Simulations'-Geoscience and Remote Sensing Symposium, 2001. IGARSS '01. IEEE 2001 International ,Volume:2,2001, pp: 810 -812

[14] M. Tedesco, R. Olmi , C. Riminesi ' Measuring the permittivity of thin samples in the X band: a thickness-independent technique' – Proceedings of the 3rd International Conference on Microwave and Millimeter Wave Technology ICMMT2002 August 17-19, 2002, Beijing, China

[15] S. Paloscia ,G. Macelloni , E. Santi, M. Tedesco, 'The capability of microwave radiometers in retrieving soil moisture profile: an application of Artificial Neural Networks' – Geoscience and Remote Sensing Symposium, 2002. IGARSS '02. 2002 IEEE International , Volume: 3 , 2002, pp 1390 -1392

[16] G. Macelloni, S. Paloscia, P.Pampaloni, R. Ruisi, E. Santi, M. Tedesco, " L'esperimento MASMExp (Microwave Alpine Snow Melting Experiment 2002Misure radiometriche a microonde" -. II Workshop AIT "Il Telerilevamento a Microonde:l'attività di Ricerca e le Applicazioni" XI Riunione Annuale CeTeM - Sala Strozzi - Dipartimento di Scienze della Terra Università di Firenze, via La Pira 4 16-17 maggio 2002

[17] G. Macelloni, S. Paloscia, P. Pampaloni, R. Ruisi, E. Santi, M. Tedesco, A. Cagnati, A. Crepaz, M. Valt, R. Zasso, R. Ranzi, M. Tomirotti, 'Analisi dei cicli di fusione e rigelo della neve con radiometria a microonde: L'ESPERIMENTO MASMEX 2002 (MICROWAVE ALPINE SNOW MELTING EXPERIMENT)', Atti del Convegno 'La Difesa della Montagna. Convegno Nazionale', Assisi, 11 – 12 dicembre 2002, GNDCI, (poster)

[18] G. Macelloni, S. Paloscia , P. Pampaloni, M. Tedesco ,M. Tomirotti , R. Ranzi, A. Cagnati and A. Crepaz , MICROWAVE RADIOMETRIC MEASUREMENTS OF THE SNOW MELTING CYCLE IN ALPINE AREA WITHIN THE FRAMEWORK OF THE ENVISNOW PROJECT. Proceedings of the EGS-AGU-EUG Joint Assembly Nice, France, 06 - 11 April 2003

[19] G. Macelloni, S. Paloscia , P. Pampaloni, M. Tedesco ,M. Tomirotti , R. Ranzi, A. Cagnati and A. Crepaz , The Microwave Alpine Snow Melting Experiment (MASMEx 2002):A contribution to the ENVISNOW project, IGARSS 2003 Tolouse – France

[20] M.Tedesco, J. Pulliainen, P. Pampaloni and M. Hallikainen, Retrieval, detection and classification of dry snow in Finland by means of microwave space-borne observations and artificial neural networks, , IGARSS 2003, Toulouse – France

[21] M. Tedesco and P. Pampaloni , SIMULATING MICROWAVE EMISSION FROM ANTARCTICA ICE SHEET WITH A COHERENT MODEL (WAVE APPROACH), Proceedings of the International Workshop on Wave Propagation, Scattering and Emission (WPSE'03): Theory, Experiments, Numerical Simulation and Inversion , Shanghai , 1-4 June 2003

[22] M. R. Drinkwater, N. Floury, M. Tedesco , L-band Antarctic ice sheet brightness temperatures: Spectral emission modeling, temporal stability and impact of the ionosphere.Accepted for the Seventh International Symposium on Antarctic Glaciology 25 - 29 August 2003, University of Milano-Bicocca, Italy

[23] M. Tedesco, E. J. Kim, D. Cline, T. Graf, T. Koike, R. Armstrong, M. J. Brodzik and J.P. Hardy, Modeling CLPX IOP3 Radiometric Data by Means of the Dense Media Theory: Preliminary Results for the LSOS Test Site" presented at American Geophysical Union Society, AGU Meeting, San Francisco, December 8-12 , 2003

[24] M. Tedesco, Edward J. Kim, Don Cline, Tobias Graf, Toshio Koike, Richard Armstrong, Mary Jo Brodzik, Janet Hardy, Dense Media Modeling of Local-Scale Snowpacks during the Cold Land Processes Experiment-1: a Sensitivity Analysis , MicroRad Specialist Meeting , Rome , Italy, February 24-27, 2004

[25] M. Tedesco, Macelloni G. and Pampaloni P., Simulating Microwave Emission in the 1-37 GHz band from Ice Sheet at Dome-C in Antarctica, Extended paper submitted to PIERS 2004, PISA

[26] M. Tedesco, E. J. Kim, D. Cline, T. Graf, T. Koike, R. Armstrong, M. Brodzik, B. Stankov, Al Gasiewski and M. Klein, Exploring scaling issues by using NASA Cold Land Processes Experiment (CLPX-1, IOP3) radiometric data, IGARSS 04

[27] M. Tedesco, Edward J. Kim, Don Cline, Tobias Graf, Toshio Koike, Janet Hardy , Richard Armstrong and Mary Brodzik, The Cold Land Processes Experiment (CLPX-1): analysis and modeling of LSOS data (IOP3 period), IGARSS 04, Anchorage, Alaska

[28] G. Macelloni, P. Pampaloni, M. Tedesco, M.Drinkwater , Microwave emission from Antarctica and the calibration of low frequency space-borne radiometers, IGARSS 04, Anchorage, Alaska, (poster)

[29] Edward J. Kim, M. Tedesco, Radiobrightness forward modeling vs. observations from local to satellite scales during the 2003 NASA Cold Land Processes Experiment, SPIE's Fourth International Asia-Pacific Environmental Remote Sensing Symposium, 8-12 November 2004, Waikiki Beach Marriott Resort Honolulu, Hawaii USA (poster)

[30] Edward J. Kim, M. Tedesco, Roger de Roo, Anthony W. England, Haoyu Gu, Hanh Pham, David Boprie, Tobias Graf, Toshio Koike, Richard Armstrong, Mary Brodzik, Janet Hardy,Don Cline, Local Scale Radiobrightness Modeling During the Intensive Observing Period-4 of the Cold Land Processes Experiment-1, AGU meeting 2004 , San Francisco (poster)

[31] M. Tedesco, Edward J. Kim, Don Cline, Tobias Graf, Toshio Koike, Richard Armstrong , Mary Jo Brodzik,, Boba Stankov, Al Gasiewski, Marian Klein and VladimirLeuskiy, Analysis of multi scale radiometric data acquired during the NASA Cold Land Process Experiment, AGU meeting 2004, San Francisco (poster)

[32] Richard Kelly, James Foster and M. Tedesco, The AMSR-E Snow Water Equivalent Product: Algorithm Development, Validation and Status, Eastern Snow Conference, Waterloo, Ontario, June 7-10, 2005

[33] M. Tedesco and Paolo Pampaloni, Evaluation and development of techniques for the retrieval of snow properties from microwave remotely sensed data, European Geosciences Union, General Assembly – Vienna, Austria, 24 – 29 April, 2005

[34] M. Tedesco, James R. Wang, Richard J. Kelly and Dorothy K. Hall, Inter-comparison of optical and microwave remote sensing derived snow products and ground validation, European Geosciences Union, General Assembly – Vienna, Austria, 24 – 29 April, 2005

[35] M. Tedesco, Edward J. Kim, Roger de Roo, Anthony W. England, Haoyu Gu, Hanh Pham, David Boprie, Janet Hardy,Don Cline, Measured vs. modeled CLPX 2003 snow brightness temperatures during melting/refreezing cycles using a multi-layer model based on dense medium radiative transfer theory, IEEE-APS URSI Conference, 5 - 8 July 2005, Washington DC, USA

[36] M. Tedesco, Edward J. Kim,IEEE-APS URSI Conference, 5 - 8 July 2005, Washington DC, USA

[37] M. Tedesco and Edward J Kim, Combining genetic algorithms and Dense Medium Theory for the retrieval of dry snow parameters from microwave radiometric data, International Geoscience and Remote Sensing Symposium , Seoul, Korea, 25-29 July, 2005

[38] Edward J.Kim, M. Tedesco, and Jeffrey P. Walker, Observed Scaling Behavior of Snow and Soil Moisture Signatures from the CLPX and NAFE Campaigns, accepted to microRad 2006, Puerto Rico, February 2006

[39] M. Tedesco and Edward J Kim, An integrated snow radiance and snow physics modeling framework for cold land surface modeling, accepted to microRad 2006, Puerto Rico, February M. Tedesco and Min-Jeong Kim, A study on a combined retrieval algorithm for falling snow and snow on ground parameters by means of passive microwave observations, AGU 2005 fall meeting, San Francisco, 5-8 December 2005 (Poster)

[40] M. Tedesco and Edward J Kim, A genetic algorithms-based technique for the retrieval of dry snow parameters, AGU 2005 fall meeting, San Francisco, 5-8 December 2005 (Poster)

[41] Edward J Kim and M. Tedesco, Spatial Scaling of Snow Observations and Microwave Emission Modeling During CLPX and Appropriate Satellite Sensor Resolution, AGU 2005 fall meeting, San Francisco, 5-8 December 2005 (Poster)

[42] Edward J.Kim, M.Tedesco, and Jeffrey P. Walker, Observed Scaling Behavior of Snow and Soil Moisture Signatures from the CLPX and NAFE Campaigns, MicroRad 2006, February 2006, Puerto Rico (poster)

[43] Edward J Kim and M. Tedesco, An integrated snow radiance and snow physics modeling framework for cold land surface modeling, MicroRad 2006, February 2006, Puerto Rico

[44] M. Tedesco and Jeff Miller , Global multi-sensor active and passive microwave retrieval of snow parameters, European Geophysical Union Society EGU meeting, Vienna, Austria, April 2 – 7, 2006

[45] M. Tedesco and Edward J Kim, Spatial behavior of snow observations, radiometric data and microwave emission modeling, European Geophysical Union Society EGU meeting, Vienna, Austria, April 2 – 7, 2006

[46] M. Tedesco, Alexander Kokhanovsky and Eleonora Zege, Retrieval of snow grain size and impurities from remotely sensed data, European Geophysical Union Society EGU meeting, Vienna, Austria, April 2 – 7, 2006 (poster)

[47] M. Tedesco and Edward J Kim, Validation, inter-comparison and development of electromagnetic models for passive microwave remote sensing of snow, 63rd Eastern Snow Conference, June 4 -7, 2006, Newark, Delaware

[48] Edward J Kim and M. Tedesco, Snow Spatial Scaling Analyses Using In Situ Measurements, Radiances, and Retrievals from CLPX-1, 63rd Eastern Snow Conference, June 4 -7, 2006, Newark, Delaware

[49] M. Tedesco, and Edward J Kim, Analysis of spatial scaling behavior during CLPX-I: snow observations, radiometric data and microwave emission modeling, IGARSS'06, Denver, CO, July 26-August 3, 2006

[50] Richard Edward James Kelly, M. Tedesco, Edward J Kim, James L Foster, Does the spatial resolution of passive microwave measurements of snow matter? Some observations from the NASA Cold Land Processes Experiment. IGARSS'06, Denver, CO, July 26-August 3, 2006

[51] M. Tedesco and J. Miller, Combining active and passive microwave spaceborne data for remote sensing of snow at global scale, AGU Fall meeting, San Francisco, December 10 –15, 2006

[52] E. Kim, M Tedesco, Bhaskar Choudhury, J. Foster, D.Hall, The Goddard snow radiance assimilation project: an integrated snow radiance and snow physics modeling framework for snow/cold land surface modeling, AGU Fall meeting, San Francisco, December 10 –15, 2006

[53] B. Stankov, D. Cline and M. Tedesco, Empirical SWE Retrieval from the Airborne PSR and Ground-Based Snow Pit Measurements, and the HUT Model Comparison during the Cold Land Processes Experiment over the Northern Colorado Rocky Mountains, IGARSS 2007, Barcelona, Spain, July 2007

[54] M. Tedesco, A. Loew, T. Markus, R. Reichle, A radiance based assimilation framework for the retrieval of SWE and snow depth from AMSR-E and SSM/I data, IGARSS 2008, Boston, Invited

[55] M. Tedesco, Active and passive microwave remote sensing of snow at large spatial scales, IGARSS 2008, Boston, Invited

[56] R. E.J. Kelly, M. Tedesco, J. L. Foster, Correcting brightness temperature observations over snow from NASA's Advanced Microwave Scanning Radiometer –IGARSS 2008, Boston , Invited

[57] M. Tedesco – Speaker of the panel: Using Climate Change to Reintegrate the Humanities and Sciences and Reterritorialize Economy and Education at The Culture of Climate Change Colloquium - March 10-11, 2011 at the Graduate Center by the Nature Ecology Society, NY, NY (Invited)

[58] M. Tedesco, Ian Willis, Patrick Alexander and Alison Banwell' Measurements of supraglacial lake drainage and surface streams over West Greenland and effects on ice dynamics, AGU Fall 2011 meeting, San Francisco, December 4 – 9, 2011

[59] M. Tedesco, Supraglacial lakes over the Greenland ice sheet, Sixth Magrann Conference, Rutgers University, New Jersey, April 14 – 15, 2012

[60] M. Tedesco, The new NASA AMSR-E prototype operational SWE algorithm, NASA Goddard Space Flight Center, May 14th 2012

[61] M. Tedesco, Darker, wetter and faster: recent and projected trends of mass balance over the Greenland ice sheet and linkages to surface and sub-surface processes, University of College London March 19th, 2012

[62] M. Tedesco, Ice sheet surface hydrology features in the context of urban ecology, the City College of New York, Urban Ecology Series, March 13th 2012

[63] M. Tedesco, Darker, wetter and faster: causes and implications of recent trends of mass balance over the Greenland ice sheet, NASA GISS, February 3rd, 2012

[64] M. Tedesco, Ian Willis, Patrick Alexander and Alison Banwell' Measurements of supraglacial lake drainage and surface streams over West Greenland and effects on ice dynamics, AGU Fall 2011 meeting, San Francisco, December 4 – 9, 2011

[65] A. E. Azar, N. Shahroudi, A. Rahman, R. Khanbilvardi, and M. Tedesco, Geo-statistical Analysis of Snow Grain Size Derived by HUT Snow Emission Model, IGARSS 2007, Barcelona, Spain, July 2007

[66] B. Stankov, D. Cline and M. Tedesco, Empirical SWE Retrieval from the Airborne PSR and Ground-Based Snow Pit Measurements, and the HUT Model Comparison during the Cold Land Processes Experiment over the Northern Colorado Rocky Mountains, IGARSS 2007, Barcelona, Spain, July 2007 (Invited)

[67] M. Tedesco, J. Stroeve, J. Box and K. Steffen, Assessment of space-borne passive microwave detected melting events and visible albedo changes over the Greenland Ice Sheet, EGU 2007, Vienna, Austria, 15 – 20 April 2007

[68] M. Tedesco and T. Markus, Retrieval of snow parameters from AMSR-E brightness temperatures using a physically-based simplified approach: first results, EGU 2007, Vienna, Austria, 15 – 20 April

[69] M. Tedesco, An improved technique for snowmelt detection (1978 – 2006) over the Greenland Ice Sheet using microwave brightness temperature daily variations, EGU 2007, Vienna, Austria, 15 – 20 April 2007

[70] M. Tedesco and A. Kokhanovsky, Grain size retrieval from MODIS data using a semi-analytical retrieval algorithm (SARA) and a fractal snow grain model, 2007, Vienna, Austria, 15 – 20 April 2007

[71] M. Tedesco and E.J. Kim, Temporal trend of microwave brightness temperatures spatial heterogeneity at DOME C, Antarctica, EGU 2007, Vienna, Austria, 15 – 20 April 2007

[72] M. Tedesco, Melting over the Greenland ice sheet in 2006 and the 2003 – 2006 melting anomaly from space-borne microwave data, ARCUS Annual Meeting and Arctic Forum Embassy of Sweden and National Association of Home Builders Conference Center 23-24 May 2007

[73] M. Tedesco, Recent achievements, future plans and directions in Remote Sensing of Snow and Ice sheet, City University of New York, March 30, 2007

[74] M. Tedesco, Atmospheric Influences on AMSR-E Measurements at 19.35 and 37 GHz, March 30, 2007, City University of New York, March 30, 2007

[75] M. Tedesco, E. Kim, J. Wang, J. Miller, T. Markus, Microwave Remote Sensing of snow on land: recent results and prospects, LIS Science meeting, NASA Goddard Space Flight Center, March 7, 2007

[76] B. Boba Stankov, Donald Cline, M. Tedesco, Empirical SWE Retrieval Using Airborne Microwave and in Situ Snow Measurements, IEEE International Geoscience and Remote Sensing Symposium, Barcelona, Spain, 23 - 27 July, 2007

[77] Edward Kim, M. Tedesco, Snow Microwave Modeling and Retrievals: Performance, Resolution, and Evolution , IEEE International Geoscience and Remote Sensing Symposium, Barcelona, Spain, 23 - 27 July, 2007

[78] Konstantinos M. Andreadis, M. Tedesco, Dennis P. Lettenmaier, Eric F. Wood , Effective snow properties for brightness temperature estimation using coupled hydrologic and electromagnetic models, IEEE International Geoscience and Remote Sensing Symposium, Barcelona, Spain, 23 - 27 July, 2007

[79] Amir E Azar, Narges Shahroudi, Atiq Rahman, Reza Khanbilvardi, Hosni Ghedira, M. Tedesco , Geo-statistical Analysis of Snow Grain Size Derived by HUT Snow Emission Model, IEEE International Geoscience and Remote Sensing Symposium, Barcelona, Spain, 23 - 27 July, 2007

[80] B. B. Stankov, Albin J. Gasiewski, Don Cline, Bob Wweber, Garr Wick, Richard Kelly, Marian Klein, M. Tedesco , Small Scale Spatial Variability of Snow Cover during the 2002-2003 CLPX, IEEE International Geoscience and Remote Sensing Symposium, Barcelona, Spain, 23 - 27 July, 2007

[81] M. Tedesco and K. Steffen, The 2006 melt extent and intensity over the Greenland ice sheet from passive microwave observations, IUGG Conference, Perugia , July 2 – 13, 2007

[82] M. Tedesco - Melting snow in Greenland and Antarctica from satellite data: extreme events and updated trends, AGU General Meeting, San Francisco, 8 – 13 December 2007

[83] R. E. J. Kelly, J. Foster, M. Tedesco, Estimating SWE globally using AMSR-E observations: validation and algorithm development, AGU General Meeting, San Francisco, 8 – 13 December 2007

[84] M. Tedesco, Melting snow in Greenland and Antarctica from satellite data: extreme events and updated trends, Climate Information: Responding to User Needs – Bringing observations, Data Management, Modeling, and Prediction into the Decision Process October 22 – 23, 2007 , University of Maryland, College Park, MD, USA

[85] M. Tedesco, Remote Sensing Perspectives, Eurasian Hydroclimatology Meeting, University of Fairbanks, Alaska, November 12 – 14, 2007

[86] M. Tedesco, R. Armstrong, M. Brodzik, K. Steffen, W. Abdalati and X. Fettweiss, Melting snow in Greenland and Antarctica from space-borne microwave data and climate model results, MICRORAD 2008, Firenze, March 11 – 14 , 2008

[87] M. Tedesco, J. L Foster and R. E. J. Kelly, Assessing dynamic approaches in snow water equivalent/snow depth retrieval from AMSR-E brightness temperatures, MICRORAD 2008, Firenze, March 11 – 14 , 2008

[88] M. Tedesco, Melting in Antarctica from space-borne microwave data: updated trends, European Geosciences Union General Assembly, Vienna, April 13 – 18, 2008

[89] M. Tedesco, A. Loew, T. Markus, R. Reichle, toward A radiance based assimilation framework for the retrieval of SWE and snow depth from AMSR-E and SSM/I data, European Geosciences Union General Assembly, Vienna, April 13 – 18, 2008

[90] M. Tedesco, M. Serreze and X. Fettweis, The causes of Greenland's Record Surface Melt in 2007, European Geosciences Union General Assembly, Vienna, April 13 – 18, 2008

[91] Lyapustin, A.; Wang, Y.; Tedesco, M.; Kokhanovsky, A., Mapping Snow Grain Size over Greenland from MODIS, European Geosciences Union General Assembly, Vienna, April 13 – 18

[92] X. Fettweis, H. Gallée, M. Tedesco, E. Hanna, M. Erpicum, A record negative Greenland ice sheet surface mass balance rate in 2007, Accepted for the European Geosciences Union General Assembly, Vienna, April 13 – 18, 2008

[93] M. Tedesco, A. Loew, T. Markus, R. Reichle, A radiance based assimilation framework for the retrieval of SWE and snow depth from AMSR-E and SSM/I data, IGARSS 2008, Boston, Invited

[94] M. Tedesco, Active and passive microwave remote sensing of snow at large spatial scales, IGARSS 2008, Boston, Invited

[95] R. E.J. Kelly, M. Tedesco, J. L. Foster, Correcting brightness temperature observations over snow from NASA's Advanced Microwave Scanning Radiometer –IGARSS 2008, Boston , Invited

[96] M. Tedesco, From snow depth in Colorado to melting snow in Greenland: recent advances in microwave remote sensing of snow, January 23, 2008, NASA Goddard Space Flight Center, Greenbelt, MD, USA

[97] M. Tedesco, R. Kelly, J. Foster, J. Wang, E. J. Kim, T. Markus and J. Miller, Maintenance, validation and improvement of the NASA AMSR-E product, 65th Annual meeting of the Eastern Snow Conference, Vermont, USA, May 28 – 30, 2008

[98] M. Tedesco, Snowmelt over Antarctica (1979 – 2008) from spaceborne passive microwave data and an improved physically-based threshold algorithm: a closer look to the Antarctic Peninsula, Antarctic Peninsula Climate Change meeting (APCC 5), June 24 – 26, 2008, University of Irvine, Irvine, CA

[99] M. Tedesco, R. Kelly, J. Foster, E. Kim, T. Markus, R. Reichle, A. Loew, J. Wang, Uncertainties assessment in the AMSR-E SWE product: atmospheric effects and grain size sensitivity, AMSR-E Science Team Meeting, Telluride, CO, July 14 – 16, 2008

[100] M. Tedesco and P. Narvekar, Validation, assessment and refinement of the NASA AMSR-E Snow Water Equivalent Product, Eastern Snow Conference, The 66th Annual Meeting of the Eastern Snow Conference ,Lake, Ontario, Canada 9-11 June 2009

[101] M. Tedesco , H. P. Marshall, E. Josberger, N. Steiner and X. Xu, The 2009 Ground Passive and Active Snow (GAPS) Experiment , The 66th Annual Meeting of the Eastern Snow Conference, Lake, Ontario, Canada, 9-11 June 2009

[102] M. Tedesco, G. Stovall and G. Green , Supraglacial Lakes over the Greenland Ice Sheet from Visible and NIR Satellite Data: from data visualization to volume change analysis analysis, The 66th Annual Meeting of the Eastern Snow Conference Niagara on the Lake, Ontario, Canada, 9-11 June 2009

[103] N. Steiner and M. Tedesco, Snowmelt Detection Over Antarctic Ice Shelves by means of a wavelet-based approach applied to space-borne microwave active measurements. The 66th Annual Meeting of the Eastern Snow Conference Niagara on the Lake, Ontario, Canada 9-11 June 2009

[104] M. Tedesco, 2009 updated results and activities, The Program for Arctic Regional Climate Assessment, Sept. 30 – Oct. 1, 2009

[105] M. Tedesco, Toward an improved and validated AMSR-E SWE product: fieldwork, land models and meteorological data, Joint AMSR Science Team Meeting 25-26 June 2009 Washington, D.C.

[106] M. Tedesco, P. Narvekar, N. Steiner, H. P. Marshall, E. Josberger and X. Xu, Toward a new AMSR-E SWE algorithm ? Fieldwork activities, and algorithm development, Fall 2009 AGU, San Francisco , December 14 – 28, 2009

[107] G. Stovall and M. Tedesco, Comparison between ASTER and MODIS Melt Pond Surface and Volume Estimates and Trends on the Western Margin of Greenland, Fall 2009 AGU, San Francisco , December 14 – 28, 2009

[108] Andrew J. Monaghan and M. Tedesco' An updated Antarctic melt record through 2009 and its linkages to high-latitude and tropical climate variability, Fall 2009 AGU, San Francisco , December 14 – 28, 2009

[109] M. Tedesco, H. P. Marshall, E. Josberger, N. Steiner and X. Xu, The 2009 Ground Passive and Active Snow (GAPS) Experiment, Fall 2009 AGU, San Francisco , December 14 – 28, 2009

[110] M. Tedesco, N. Steiner, H. P. Marshall and P. Narvekar, Assessment and development for SWE/snow depth retrieval from active and passive microwave data, Workshop on Cold Regions Hydrology, Innsbruck, on 28-30 April 2010

[111]M. Tedesco, P. Narvekar, N. Steiner, H. P. Marshall, E. Josberger and X. Xu, Toward a new AMSR-E SWE algorithm ? Fieldwork activities, and algorithm development, accepted for the European Geosciences Union General Assembly 2010, Vienna, Austria, 02 – 07 May 2010

[112] M. Tedesco, H. P. Marshall, E. Josberger, N. Steiner and X. Xu, The 2009 Ground Passive and Active Snow (GAPS) Experiment, European Geosciences Union, General Assembly 2010 Vienna, Austria, 02 – 07 May 2010

[113] G. Stovall and M. Tedesco, Comparison between ASTER and MODIS Melt Pond Surface and Volume Estimates and Trends on the Western Margin of Greenland, European Geosciences Union General Assembly 2010 Vienna, Austria, 02 – 07 May 2010

[114] M. Tedesco, H. P. Marshall, N. Steiner , E. Josberger, X. Xu, S. Havens, T. Painter and M. Skiles, The 2009 and 2010 Ground Passive and Active Snow GAPS) Experiments, 67th Annual Meeting of the Eastern Snow Conference Jiminy Peak Mountain Resort, Hancock, MA, June 8-10, 2010

[115] M. Tedesco, P. Narvekar, James Foster, R. Kelly and B. Choudhury, Toward an improved NASA AMSR-E SWE product: Validation and refinement, accepted for IGARSS 2010, Honolulu , Hawaii, July 25 – 30 , 2010

[116] M. Tedesco, H. P. Marshall, N. Steiner, E. Josberger and X. Xu' Combining active and passive microwave data for snow parameters retrieval with multi-sensor snow properties measurements: the GAPS09 and GAPS10 experiments, accepted for IGARSS 2010, Honolulu , Hawaii, July 25 – 30 , 2010

[117] M. Tedesco, P. Narvekar, R. Kelly, J. Foster and R. Reichle, Assessment and development of the NASA AMSR-E SWE algorithm, 11th Specialist Meeting on Microwave Radiometry and Remote Sensing of the Environment, March 1-4, 2010, Washington DC, USA

[118] M. Tedesco and A. J. Monaghan, An updated Antarctic melt record through 2009 and its linkages to high-latitude and tropical climate variability, 11th Specialist Meeting on Microwave Radiometry and Remote Sensing of the Environment, March 1-4, 2010, Washington DC, USA

[119] M. Tedesco, H. P. Marshall, N. Steiner, E. Josberger and X. Xu, The 2009 Ground Passive and Active Snow (GAPS) Experiment, 11th Specialist Meeting on Microwave Radiometry and Remote Sensing of the Environment, March 1-4, 2010, Washington DC, USA

[120] M. Tedesco, Xavier Fettweis, Mary Brodzik, Richard Armstrong, Matt Savoie, Joan Ramage, Melting trends (1979 - 2009) over the Arctic and links to climate variability, State of the Arctic, 16 – 19 March 2010, Miami, Florida, USA

[121] M. Tedesco, Nicholas Steiner, Konrad Steffen, Xavier Fettweis, Balazs Fekete, Jason Gulley, and Nicholas Bayou, Hydrofracture analysis and spatio-temporal evolution of a supraglacial lake in West Greenland from observational and modeling tools, EGU 2011 – April 03 – 08 , 2011, Vienna

[122] M. Tedesco, Hans-Peter Marshall, Xavier Fettweis, Nicholas Steiner, and Patrick Alexander, Assessment of modeled surface mass balance estimates over the Greenland ice sheet using in-situ observations and remote sensing data, EGU 2011 – April 03 – 08 , 2011, Vienna

[123] Xavier Fettweis, Michiel van den Broeke, Willem Jan van de Berg, Marco Tedesco, Alexandre Belleflamme, Bruno Franco, and Michel Erpicum, Explanation of the extreme low surface mass balance over the Greenland ice sheet in 2010 with the help of a regional climate model and a circulation type classification, EGU 2011 – April 03 – 08 , 2011, Vienna

[124] Marco Tedesco, Xavier Fettweis, Michiel van den Broeke, Roderik van de Wal, Paul Smeets, Willem Jan van de Berg, Mark Serreze, and Jason Box, The role of albedo and accumulation in the 2010 melting record in Greenland, EGU 2011 – April 03 – 08 , 2011, Vienna

[125] Nick Steiner and Marco Tedesco, An enhanced resolution QuikSCAT derived Antarctic melt record (1999-2009): development and evaluation of wavelet-based methods, EGU 2011 – April 03 – 08 , 2011, Vienna

[126] Xavier Fettweis, Marco Tedesco, and Michiel van den Broeke, Assimilation of the 1979-2009 microwave satellite data into the regional climate MAR model for studying the Greenland ice sheet melt extent, EGU 2011 – April 03 – 08 , 2011, Vienna

[127] M. Tedesco, Toward a new AMSR-E SWE operational algorithm, EGU 2011 – April 03 – 08 , 2011, Vienna

[128] Marco Tedesco, Christine Foreman, Nick Steiner, and Tristan Schwartzman, Preliminary results on the comparison between spectral, physical and chemical properties of West Greenland and Antarctica (Dry Valleys) cryoconites, EGU 2011 – April 03 – 08 , 2011, Vienna

[129] Paul Holland, Hugh Corr, Hamish Pritchard, David Vaughan, Adrian Jenkins, Robert Arthern, Marco Tedesco, and Josefino Comiso, The firn air content of Larsen Ice Shelf, EGU 2011 – April 03 – 08 , 2011, Vienna

[130] M. Tedesco, *Climate change at the poles,* Digital culture and climate change at the poles, Interdisciplinary Climate Change Seminar Cycle, CCNY, November 24, 2011

[131] M. Tedesco, *The 2011 expedition to Greenland,* The Graduate Center of the City University of New York, November 17, 2011

[132] M. Tedesco, The New AMSR-E operational algorithm, AGU Fall 2011 meeting, San Francisco, December 4 – 9, 2011 (poster)

[133] Nick Steiner and Marco Tedesco, An enhanced resolution QuikSCAT derived Antarctic melt record (1999-2009): development and evaluation of wavelet-based methods, AGU Fall 2011 meeting, San Francisco, December 4 – 9, 2011 (poster)

[134] P. Alexander, M. Tedesco, N. Steiner , H.-P. Marshall, S. Luthcke and X. Fettweis, Identification of accumulation, density and grain size bias in the regional climate model MAR over the Greenland ice sheet using in-situ and remotely sensed data, AGU Fall 2011 meeting, San Francisco, December 4 – 9, 2011 (poster)

[135] A. Banwell, I. Willis, N. Arnold, M. Tedesco, A. Ahlstrom, Modelling Melt, Surface Routing, & Lake Filling in the Paakitsoq Region, W. Greenland, International Glaciological Society British Branch Meeting September 7th and 8th, 2011

[136] I. Willis, M. Tedesco, A. Banwell, N. Arnold and A. Ahlstrøm, Filling and draining of surface lakes on the Greenland Ice Sheet, International Glaciological Society British Branch Meeting September 7th and 8th, 2011

[137] M. Tedesco, I. Willis, M. Hoffman, A. Banwell and P. Alexander, Measurements of supraglacial lake drainage and surface streams over Greenland and effects on ice dynamics, PARCA Meeting, January 23rd 2012, NASA Goddard Space Flight Center

[138] M. Tedesco, N. Steiner, P. Alexander and X. Fettweis, Mapping Melting over the Greenland and Antarctica ice sheets from microwave spaceborne observations and model outputs (1958 – 2011), AAG Annual Meeting: NEW YORK 2012, February 24 – 28

[139] M. Tedesco, Preliminary assessment of SWE and snow depth retrievals from enhanced spatial resolution spaceborne microwave data, AAG Annual Meeting: NEW YORK 2012, February 24 – 28

[140] M. Tedesco, I. Willis, M. Hoffman, A. Banwell and P. Alexander, Ice dynamic response to slow and fast supraglacial lake drainage in Greenland, INTERNATIONAL GLACIOLOGICAL SOCIETY International Symposium on Glaciers and ice sheets in a warming climate, University of Alaska Fairbanks, Alaska, USA 24 - 29 June 2012

[141] M. Tedesco, Darker, wetter and faster: recent and projected trends of mass balance over the Greenland ice sheet and linkages to surface and sub-surface processes, University of Cambridge, March 21st, 2012 Invited

[142] M. Tedesco, The melting of the Greenland ice sheet from satellite data, climate models and ground observations: past, current and future trends, Planet Under Pressure Conference, London, March 26th – 29th, 2012

[143] M. Tedesco, Snow and ice scientific activities at the Cryospheric Processes Laboratory, NOAA CREST Advisory Meeting, The City College of New York, June 8th, 2012

[144] S. V. Nghiem, D. K. Hall, T. L. Mote, M. Tedesco, M. Albert, K. Keegan, C. A. Shuman, N. E. DiGirolamo, and G. Neumann,The Extreme Melt Event of 2012 across the Greenland Ice Surface: A Sudden Anomaly since the Medieval Warm Period, Annual GSA meeting, 4 – 7 November, 2012

[145] M. Tedesco, J. Deems, T. Datta, P. Alexander, Combining fractals theory and enhanced spatial resolution remote sensing data for studying scale processes of SMB quantities over the Greenland and Antarctica ice sheets, AGU Fall Meeting, December 9 – 13, 2013

[146] M. Tedesco, The Polar Cyberinfrastructure Program at the National Science Foundation, AGU Fall Meeting, December 9 – 13, 2013

[147] Laurence C Smith, Vena Chu, Kang Yang, Asa K Rennermalm, Carl J Legleiter, Colin J Gleason, Lincoln H Pitcher, Samiah Moustafa, Brandon T Overstreet, Alberto Behar, Marco Tedesco, Richard R Forster, Supraglacial meltwater runoff from the Greenland ice sheet, AGU Fall Meeting, December 9 – 13, 2013

[148] M. Navari, S. M. Bateni, S. Margulis, P. Alexander, M. Tedesco, Estimating Greenland Ice Sheet Surface Mass balance Using a Novel Data Assimilation Framework: An Observing System Simulation Experiment, AGU Fall Meeting, December 9 – 13, 2013

[149] P. Alexander, M. Tedesco, S. Luthcke, N. Schlegel, E. Larour, X. Fettweis, Validating the Surface Mass Balance spatiotemporal variability in a regional climate model over Greenland using an ice sheet model and GRACE, AGU Fall Meeting, December 9 – 13, 2013

[150] M. Tedesco, J. Perl, I. Saltz, E. Ham, V. Golosiy, P. Alexander, T. Datta, A. Radovsky, F. Quiroz, G. Lewkowic, The PolarSEEDS project: communicating Greenland melting through visualization and sonification, AGU Fall Meeting, December 9 – 13, 2013

[151] Rajashree Datta, Marco Tedesco, Marie Dorleans, Cecile Agosta, Patrick M Alexander, Xavier Fettweis, Evaluating the impact of blowing snow on surface mass and energy balance outputs of the Modèle Atmosphérique Régionale (MAR) regional climate model over Antarctica (2001 – 2010), AGU Fall Meeting, December 9 – 13, 2013

[152] M. Tedesco, Communicating Greenland climate change through sonifications and visualization, Invited talk at Visualized conference, New York, January 2014

[153] M. Tedesco, From puddles to the ocean: melting over Greenland from a multi-scale integrated perspective, Invited talk at the Penn State University, May 2014

[154] M. Tedesco, Communicating Greenland climate change through sonifications and visualization, Invited talk at the Museum of Art in Rutgers, New Jersy, February 2014

[155] M. Tedesco, NASA operational approaches and exploratory activities for improving SWE estimates and snowmelt detection from passive microwave observations, SNOWPEX meeting, College Park, MD, Sept. 2014

[156] Allen Pope, Ted Scambos, Mahsa Moussavi, Marco Tedesco, and Mike Willis, Estimating Supraglacial Lake Depth with Landsat 8 AGU Fall Meeting, December14 – 18, 2014

[157] Green, G., M. Tedesco, P. Alexander , X. Fettweis, and T. Datta, Publishing Earth Science Data with Python: A Case Study with Regional Climate Model Output, AGU Fall Meeting, December14 – 18, 2014

[158] Michael G. Brown and M. Tedesco, Seasonal and Intra-Seasonal Variability of Surface Streams Over the West Greenland Ice Sheet from High Resolution Satellite Optical Data., AGU Fall Meeting, December14 – 18, 2014

[159] M. Tedesco and J. Stroeve, Spaceborne estimated long-term trends (1980s – 2013) of albedo and melting season length over the Greenland ice sheet and linkages to climate drivers , AGU Fall Meeting, December14 – 18, 2014

[160] J.R Mioduszewski, A. K. Rennermalm, J. Stroeve, M. Tedesco, D.A. Robinson' Arctic sea ice extent and Greenland ice sheet surface climate co-variability investigated with self-organizing maps and singular value decomposition, AGU Fall Meeting, December14 – 18, 2014

[161] T. Mote, M. Tedesco, EXTREME GREENLAND BLOCKING EVENTS AND THEIR IMPACT ON SUMMER RUNOFF ACROSS THE GREENLAND ICE SHEET, AGU Fall Meeting, December14 – 18, 2014

[162] Erik U. Noble, Marco Tedesco, James Booth, Åsa Rennerlmalm, Julienne Stroeve, Xavier Fettweis, Patrick Alexander, Investigating the impact of sea ice concentration extremes on atmospheric moisture transport and low-level winds over Greenland and surrounding seas, AGU Fall Meeting, December14 – 18, 2014

[163] Orantes, Erik J. , Kenyon, Patricia M., Alexander, Patrick M. and Tedesco, Marco, HIGH FREQUENCY SEISMIC WAVES RECORDED BY THE REGIONAL GREENLAND ICE SHEET MONITORING NETWORK (GLISN) DURING THE DRAINAGE OF A SUPRAGLACIAL LAKE, AGU Fall Meeting, December14 – 18, 2014

[164] Patrick M. Alexander, Lora S. Koenig, Marco Tedesco, Rajashree Datta, Xavier Fettweis, Assessment of Regional Climate Model-Simulated Snow Density Over the Greenland and Antarctic Ice Sheets Using In-Situ Measurements, AGU Fall Meeting, December14 – 18, 2014

[165] R. Datta, M. Tedesco, X. Fettweis, H. Gallee, J. Booth, Regional Patterns of Blowing Snow Dynamics on the Antarctic Ice Sheet from the *Modèle Atmosphérique Régionale* (MAR), Assessed with In Situ and Remote Sensing data (2000-2011), AGU Fall Meeting, December14 – 18, 2014

[166] A. K. Rennermalm, M. Tedesco, T. Mote, I. Overeem' Greenland ice sheet meltwater export and river discharge, AGU Fall Meeting, December14 – 18, 2014

[167] M. Tedesco, The darkening of the Greenland ice sheet, NASA GISS, March 21, 2015

[168] Å. K. Rennermalm, M. Tedesco, T. Mote, I. Overeem, A. P. B. Mikkelsen, B. Hasholt, Title: Greenland Ice Sheet Meltwater Export and River Discharge, Climate days, Ilulissat, Greenland, June 3rd, 2015

[169] M. Tedesco, the Darkening of the Greenland ice sheet, Climate days, Ilulissat, Greenland, June 3rd, 2015

[170] P. Alexander, L.S. Koenig, R. Datta, M. Tedesco, S.R.M. Ligtenberg, X. Fettweis, M.R. van den Broeke, Evaluation of regional climate model and firn model simulations of Antarctic ice sheet snow and firn density using in situ data. WAIS meeting, September 2015

[171] M.Tedesco, R.E. Bell, I. Das, E. Hanna, P.M. Alexander, L. Koening, Processes Controlling the Surface Mass Balance of the Greenland Ice Sheet for Improving Mass Balance Estimates: Outcomes from a Community Workshop, AGU Fall Meeting, December12 – 16, 2016

[172] A. K. Rennermalm, M. Tedesco, L.C. Smith, L.H. Pitcher, T.L. Mote, P.L. Yager, S. Moustafa, M.G. Cooper, D. van As, B. Hasholt, A.B. Mikkelsen, Understanding Greenland Ice Sheet Runoff Losses, AGU Fall Meeting, December12 – 16, 2016

[173] M. Tedesco, P.M. Alexander, K. Briggs, M. Linares, T.L.Mote, Hyperspectral, photogrammetric and morphological characterization of surface impurities over the Greenland ice sheet from remote sensing observations, AGU Fall Meeting, December12 – 16, 2016

[174] S.de la Peña, I. Howat, A. Behar, S.F. Price, J. Thanga, J.M. Crowell, S. Huseas, M. Tedesco, Continuous measurements of surface mass balance, firn compaction, and meltwater retention in Greenland for altimetry validation, AGU Fall Meeting, December12 – 16, 2016

[175] C. Florentine, J. Harper, J. Johnson, T. Meierbachtol, M. Tedesco, Using Greenland Ice Sheet ablation zone radiostratigraphy to test modern data against century-averaged steady state conditions, AGU Fall Meeting, December12 – 16, 2016

[176] P.M. Alexander, L. Koenig, M. Tedesco, K. Munneke, X. Fettweis, S. Ligtenberg, B. Noel, M.R van den Broeke, C. Miège, Modeling Greenland Ice Sheet Snow and Firn Densities: Role of Dry Snow Density, Liquid Water, and Model Setup, AGU Fall Meeting, December12 – 16, 2016

[177] S. de la Peña, I. Howat, A. Behar, S.F. Price, J. Thanga, J.M. Crowell, S. Huseas, M. Tedesco, Continuous measurements of surface mass balance, firn compaction, and meltwater retention in Greenland for altimetry validation, AGU Fall Meeting, December12 – 16, 2016

[178] R.E. Bell, W. Chu, J. Kingslake, I. Das, M. Tedesco, K.J. Tinto, C.J. Zappa, M. Frezzotti, Persistent Surface River on Nansen Ice Shelf Drains Meltwater Preventing Collapse for Decades, AGU Fall Meeting, December12 – 16, 2016

[179] S. Moustafa, A.K. Rennermalm, M. Tedesco, T.L. Mote, L. Koenig, L.C. Smith, B. Hagedorn, I. Overeem, R.S. Sletten, A.B. Mikkelsen, B. Hasholt, D.van As, D.K. Hall, Characterizing West Greenland ice sheet runoff losses from modeled and measured data, AGU Fall Meeting, December12 – 16, 2016

[180] P.M. Kenyon, E.J. Orantes, S. Grynewize, M. Tedesco, Low Velocity Seismic Waves Produced by Stick-Slip Processes During the Drainage of Two Supraglacial Lakes in Greenland, AGU Fall Meeting, December12 – 16, 2016

[181] L.C. Smith, K. Yang, L.H. Pitcher, B.T. Overstreet, V.W. Chu, A.K. Rennermalm, M.G. Cooper, C.J. Gleason, J. Ryan, A. Hubbard, M. Tedesco, A. Behar, Surface water hydrology and the Greenland Ice Sheet, AGU Fall Meeting, December12 – 16, 2016

[182] C.E. Florentine, J.T. Harper, J.V. Johnson, T.W. Meierbachtol, M. Tedesco, Using Greenland Ice Sheet ablation zone radiostratigraphy to test modern data against century-averaged steady state conditions, AGU Fall Meeting, December12 – 16, 2016

[183] H. Oliver, H. Luo, R.M. Castelao, G.van Dijken, K.S. Mattingly, J.J. Rosen, T.L. Mote, K.R. Arrigo, A.K. Rennermalm, M. Tedesco, P.L. Yager, Extreme surface melting of the Greenland Ice Sheet increases growth potential for light-limited phytoplankton in the Labrador Sea, AGU Fall Meeting, December12 – 16, 2016

[184] M. Tedesco, Snow science activities of the AMSR-E team, *AMSR Science Team Annual Meeting,* Sept. 24, 2017, LDEO

[185] M. Tedesco, Initial Activities of High Mountain Asia Project at LDEO, NASA HIMAT 1st meeting, NASA GSFC, November 30th, 2016

[186] K. Miles, C. Benedek, M. Tedesco and I. Willis, Analysis of the Greenland Ice Sheet's surface hydrology using Synthetic Aperture Radar imagery ,European Geophysical Union Society EGU meeting, Vienna, Austria, April 20 – 24, 2016

[187] T. Mote, R. Castelao, P. Yager, H. Luo, H. Oliver, K. Mattingly, M. Tedesco, A. Rennermalm, and K. Arrigo, The Impact of Extreme Atmospheric Circulation and Runoff on Ocean Stratification and Productivity near Greenland , EMS Annual Meeting Abstracts Vol. 13, EMS2016-645, 2016 16th EMS / 11th ECAC

[188] M. Tedesco, The Greenland ice sheet and Arctic amplification, University of Leeds, January 2016

[189] M. Tedesco and C. Benedek, Combining Sentinel-1 and Landsat-8 to study the seasonal evolution of the Greenland ice sheet surface hydrological system , ESA Living Planet symposium, Prague, 9 – 13 May, 2016

[190] M. Tedesco, communicating climate change through sonification and data visualization, National Academy of Sciences, January, 2016

[191] T. Mote, K. Arrigo, R. Castelao, A. Rennermalm, M. Tedesco, P. Yager, H. Luo, and G.van Dijken, The Impact of Extreme Melt on Ocean Stratification and Productivity near West Greenland, PARCA Meeting, NASA GSFC, January 2016

[192] P.L. Yager, H. Oliver, R. Castelao, H. Luo, K. Mattingly, J. Rosen, G. van Dijken, A. Rennermalm, M. Tedesco, and T. Mote, Ice sheet meltwater impacts on coastal biological productivity - models and observations for southwest Greenland, PARCA Meeting, NASA GSFC, January 2016

[193] M. Tedesco, T. Mote, X. Fettweis, E. Hanna, J. Jeyaratnam, J.F. Booth, R. Datta and K. Briggs Arctic Amplification and the Northward shift of a new Greenland melting record, PARCA meeting NASA GSFC, January 2016

[194] M. Tedesco, P. Alexander, X. Fettweis, S. Lutchke, T. Mote, A. Rennelmalm and R. Bell, Recent summer atmospheric circulation changes over the Arctic drive a new partitioning of the Greenland ice sheet mass losses, PARCA meeting NASA GSFC, January 2017

[195] K. Rennermalm, M. Tedesco, T. Mote, P.Yager, E. Enderlin, L. Pitcher, L. Smith, D. van As, Greenland ice sheet freshwater export to surrounding oceans, PARCA meeting NASA GSFC, January 2017

[196] P. M. Alexander, L. S. Koenig, M. Tedesco, P. Kuipers Munneke, X. Fettweis, S. R. M. Ligtenberg, B. Noël, M. R. van den Broeke, C. Miège, Understanding sources of error in simulated Greenland ice sheet snow and firn densities, PARCA meeting NASA GSFC, January 2017

[197] P.M. Alexander, A.N. Legrande, E. Fischer, M. Tedesco, M. Kelley, X. Fettweis, S. E. Moustafa, Improving simulations of ice sheet albedo and surface mass balance in the GISS ModelE GCM, International Symposium on The Cryosphere in a Changing Climate, Wellington, New Zealand, 12–17 February 2017

[198] M. Tedesco , An Arctic Tango: atmospheric and surface processes modulating the mass balance of the Greenland ice sheet, University of Washington, Seattle, February 2017

[199] P.M. Alexander, L.S. Koenig, M. Tedesco, P. Kuipers Munneke, X. Fettweis, S.R.M. Ligtenberg, B. Noël, M.R. van den Broeke, C. Miège , Evaluating and testing climate model simulations of Greenland ice sheet snow and firn densities,The annual international arctic workshop 2017, 23-35 March 2017 (Thursday - Saturday) Buffalo, New York

[200] R. Datta, Tedesco, M., Agosta C., Fettweis, X., KuippersMunneke, P., Assessment of foehn and temperaturebased melt patterns over the Larsen C Ice Shelf as simulated by the MAR regional climate model; AGU 2017, December 11 15, 2017, New Orleans

[201] Alexandra Boghosian, Robin E. Bell, Sarah Child, Marco Tedesco, Jonathan Kingslake, Oleg Alexandrov, Scott McMichael, Endmembers of ice shelf melt; AGU 2017, December 11 15, 2017, New Orleans

[202] M. Linares., Tedesco, M., Margulis, S., G. Cortes and Fettweis, X., Preliminary results and assessment of the MAR outputs over High Mountain Asia, AGU 2017, December 11 15, 2017, New Orleans

[203] Achim Heilig, Olaf Eisen, Mike Mc Ferrin, Marco Tedesco, How Deep is Deep Percolation? Upwardlooking Radar for Continuous Monitoring of Melt and Accumulation within the Deep Percolation Zone of the Greenland Ice Sheet, AGU 2017, December 11 15, 2017, New Orleans

[204] P. M. Alexander, A. N. LeGrande, E. Fischer, M. Tedesco, M. Kelley, G. Schmidt, and X. Fettweis, Improved Greenland surface mass balance in the ModelE2 GCM: local and large scale impacts, AGU 2017, December 11 15, 2017, New Orleans

[205] M. Tedesco, P. Alexander, D. Porter, X. Fettweis, S. Luthke, T. Mote, A. Rennelmalm and E. Hanna, The role of the North Atlantic Oscillation (NAO) on recent Greenland surface mass loss and mass partitioning, AGU 2017, December 11 15, 2017, New Orleans

[206] S. E. Moustafa, A. K. Rennermalm, D. van As, I. Overeem, M. Tedesco, T. Mote, L. S. Koenig, L. C. Smith, B. Hagedorn, R. Sletten, A. B. Mikkelsen, B. Hasholt, D. K. Hall, X. Fettweis, L. H. Pitcher and A. Hubbard, Comparison of modelled runoff with observed proglacial discharge across the western margin of the Greenland ice sheet, AGU 2017, December 11 15, 2017, New Orleans

[207] Giovanni Corti, Regine Hock, Federico Covi, Sasha Leidman, Asa Rennerlmalm, Jonny Kingslake, Clement Miege, Marco Tedesco, Takao Kameda, Spatio Temporal Variations of Firn Properties on the Western Greenland Ice Sheet, AGU 2017, December 11 15, 2017, New Orleans

[208] Asa Rennermalm, Regine Hock, Marco Tedesco, Giovanni Corti, Federico Covi, Clement Miege, Jonathan Kingslake, Sasha Leidman, Steven Munsell, Spatial variability of meltwater refreezing in west Greenland ice sheet firn, AGU 2017, December 11 15, 2017, New Orleans

[209] Marco Tedesco, Patrick Alexander, Xavier Fettweis, Scott Luthcke, Thomas Mote, Asa Rennerlmalm, Robin Bell, Edward Hanna, and Von Walden, Linkages between atmospheric circulation and mass partitioning over the Greenland ice sheet, EMS Annual Meeting Abstracts Vol. 14, EMS20173171, 2017

[210] Achim Heilig, Olaf Eisen, Mike MacFerrin and Marco Tedesco, Percolating meltwater in perennial firn ? upGPR data reveal percolation depths, liquid water content and mass transfer underneath the last summer surface within the percolation zone of the Greenland Ice Shee, GEUS meeting on Meltwater production, June 13, 2017, Copenhagen, DK

[211] M. Tedesco, MAR at the Cryosphere Processes Laboratory: a perspective on 10 years of results and achievements (invited), Grenoble, France, September 13 , 2017

[212] M. Tedesco, Warmer, wetter and darker: the changing face of the Greenland ice sheet, INTERNATIONAL GLACIOLOGICAL SOCIETY, Polar Ice, Polar Climate, Polar Change, Remote sensing and modeling advances in understanding the cryosphere, Boulder, Colorado, USA, 14-19 August 2017

[213] Marco Tedesco, Patrick Alexander, Xavier Fettweis, Thomas Mote, Asa Rennerlmalm, Edward Hanna, Von Walden, Robin Bell, Scott Luthcke, The role of atmospheric forcing on recent changes of Greenland massloss partitioning trends, INTERNATIONAL GLACIOLOGICAL SOCIETY, Polar Ice, Polar Climate, Polar Change, Remote sensing and modeling advances in understanding the cryosphere, Boulder, Colorado, USA, 14-19 August 2017

[214] A. K. Rennermalm, M. Tedesco, T. Mote, P.Yager, E. Enderlin, L. Pitcher, L. Smith, D. van As, Greenland ice sheet freshwater export to surrounding oceans, PARCA 2018, NASA GSFC, January 23, 2018

[215] M. Tedesco, P. Alexander, X. Fettweis, S. Lutchke, T. Mote, A. Rennelmalm and R. Bell, Recent summer atmospheric circulation changes over the Arctic drive a new partitioning of the Greenland ice sheet mass losses, PARCA 2018, NASA GSFC, January 23, 2018

[216] M. Tedesco, The melting of the Greenland ice sheet and sea level rise: processes, current estimates and future projections, University of Washington, Seattle (Invited)

[217] Patrick M. Alexander, Allegra N. LeGrande, Elizabeth Fischer, Marco Tedesco, Maxwell Kelley, Xavier Fettweis, Samiah E. Moustafa, Gavin A. Schmidt, Impact of elevation classes and ice sheet surface processes on Greenland surface mass balance in the NASA GISS ModelE2 GCM, Regional Sea Level Changes and Coastal Impacts, 1014 July 2017, Columbia University, NewYork (NY) USA

[218] M. Tedesco, P. Alexander, X. Fettweis, S. Luthke, T. Mote, A. Rennelmalm and E. Hanna, The role of atmospheric forcing on recent changes in Greenland mass loss partitioning, Regional Sea Level Changes and Coastal Impacts, 1014 July 2017, Columbia University, NewYork (NY) USA

[219] M. Tedesco, The melting of the Greenland ice sheet and sea level rise: processes, current estimates and future projections, Carmichael Lecture, Wright State University, Tuesday, April 4, 2017

[220] M. Tedesco, The role of the North Atlantic Oscillation (NAO) on recent Greenland surface mass loss and mass partitioning, ISAR5 / Fifth International Symposium on Arctic Research, Tokyo, January 15 18, 2018

[221] M. Tedesco, Mini-discussion of preceding presentations, Workshop on Antarctic Surface Hydrology and Future Ice Shelf Stability, Lamont-Doherty Earth Observatory, Palisades, New York, February 21-22, 2018

[222] M. Tedesco, A. Rennermalm, R. Hock, P. Alexander, G. Corti, F. Covi, C. Miege, A. Heilig, J. Kingslake, L. Koenig, S. Leidman, M. MacFerrin, S. Munsell, D. Porter and B. Smith, A calibration/validation dataset for improving remote sensing altimetry and surface mass balance over the Greenland ice sheet, ESA, LPVEW-Land Product Validation and Evolution Workshop,Frascati(Rome), Italy, Feb 27- March 1, 2018.

[223] M. Tedesco, Surface and atmospheric drivers of recent Greenland's mass balance changes: new insights and challenges, 2018 Arctic System Change Workshop, Boulder, CO, USA, 9 - 12 April 2018

[224] Heilig, Achim; Eisen, Olaf; MacFerrin, Michael; Tedesco, Marco; Fettweis, Xavier, Differences in Seasonal Melt in Greenland for Summer 2016 and 2017 - upGPR to determine liquid water percolation, retention and accumulation over the last two melt seasons, 20th EGU General Assembly, EGU2018, Proceedings from the conference held 4-13 April, 2018 in Vienna, Austria, p.13446

[225] M. Tedesco, M. Linares, S. Margulis, P. Alexander, G. Cortes, and X. Fettweis, An Assessment of the Outputs of Modèle Atmosphérique Régionale (MAR) Model Over the Himalaya Region, AOGS 15th Annual Meeting, 03 to 08 JUN, 2018

[226] M. Tedesco, Warmer, Wetter, Darker: The Changing Face of the Greenland Ice Sheet, Patagonia Upper West Side, New York, NY, Jun 20, 2018.

[227] M. Tedesco, P. Alexander, D. Porter, X. Fettweis, S. Luthcke, T. Mote, A. Rennermalm and E. Hanna, Exceptional atmospheric conditions (1850 – 2016) drive recent Greenland surface mass loss and mass partitioning, Polar 2018, Davos, Switzerland, June 15-26, 2018.

[228] P. M. Alexander, M. Tedesco, A. N. LeGrande, E. Fischer, M. Kelley, X. Fettweis, G. Schmidt, Simulating the surface mass balance of ice sheets in the ModelE2 GCM, Polar 2018, Davos, Switzerland, June 15-26, 2018.

[229] J. Kingslake, A. Banwell, R. Bell, A. Boghosian, J. Spergel, M. Tedesco and L. Trusel, Future research directions in Antarctic surface hydrology and ice-shelf Stability, Polar 2018, Davos, Switzerland, June 15-26, 2018.

[230] M. Tedesco, Ocean, climate and ice sheets, Climate Week NYC, September 24-30, 2018

[231] R. Datta, M. Tedesco, X. Fettweis, C. Agosta, S. Lhermitte and J. Lenaerts, Recent foehn-induced melt over the Larsen C Ice Shelf: from the atmosphere to the snowpack, 2018 WAIS Workshop, Stony Point Center, Stony Point, New York, U.S.A. September 16-20, 2018.

[232] A. Boghosian, R. Bell, D. Porter, M. Tedesco and S. Wang, A surface meltwater budget for ice shelves: a case study over Petermann, Greenland, 2018 WAIS Workshop, Stony Point Center,Stony Point, New York, U.S.A. September 16-20, 2018.

[233] M. Tedesco, From Greenland to Hurricane Florence: exploratory and applied science linking Arctic changes to societal applications, Jupiter NYC, Oct 5, 2018

[234] M. Tedesco, Linking atmospheric drivers to surface mass balance, hydrology and ocean Processes, Helheim Glacier / Sermilik Fjord Roundtable, The Heising-Simons Foundation, Los Altos, California, October 18 and 19, 2018

[235] M. Tedesco, The X-Snow project: citizen science for homogenizing snow measurements, Workshop: Towards a better harmonization of snow observations, modeling and data assimilation in Europe, Budapest, Hungary, October 30 - 31, 2018

[236] M. Tedesco, X-Snow , X-Snow training workshop, The Earth Institute Columbia University, New York, NY-USA, December 6, 2018

[237] Tedesco, M., P. Alexander, X. Fettweis, E. Hanna, T. L. Mote, D. F. Porter, A. K. Rennermalm, B. M. Csatho, R. E. Bell, A. Boghosian, and N. Schlegel (2018) Unprecedented (1851-2016) atmospheric conditions drive record surface and ice dynamic mass losses over the Greenland ice sheet, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[238] Alexander, P. M., M. Tedesco, E. Fischer, A. N. LeGrande, X. Fettweis, M. Flanner, S. Nowicki, and G. A. Schmidt (2018) Effect of improved physically-based simulation of land ice albedo on Greenland ice sheet surface mass balance and arctic regional climate in the ModelE GCM, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[239] X. Fettweis, SMBMIP over the Greenland ice sheet: Intercomparion of 11 models over 1980-2012 forced by ERA-Interim, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[240] Å. K. Rennermalm, R. Hock, G. Corti, F. Covi, C. Miege1, M. Tedesco, J. Kingslake, S. Leidman, X. Fettweis, Meltwater Refreezing in Southwest Greenland Ice Sheet Firn Spatial Variability and Temporal Change Between 1989 and 2017, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[241] R.T. Datta, Medley, B., Tedesco, M., Fettweis, X. , Agosta, C., Lhermitte, S and Lenaerts, J., The effects of recent autumn foehn-induced melt on the Larsen C Ice Shelf, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[242] F. Covi, R. Hock, A. K. Rennermalm, M. Tedesco, C. Miège, J. Kingslake, S. Z. Leidman, and M. MacFerrin, Modeling Energy Balance and Refreezing in Firn in Southwest Greenland during the 2017 melting season, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[243] S. Wang, M. Tedesco, M. Xu, C. Foreman, M. Flanner, Mapping the spatial distribution of dark ice and ice algae with Sentinel-3 imagery over southwest Greenland, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[244] Boghosian, A., B. M. Csatho, M. Tedesco, R. E. Bell, D. F. Porter, P. M. Alexander, and N. Schlegel (2018) Linking the atmosphere and ice dynamics in Greenland, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[245] Dong, L., D. F. Porter, M. Tedesco, and P. Alexander (2018) Developing a glacial surface model for Greenland to improve projections of surface runoff, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[246] Linares, M., M. Tedesco, S. A. Margulis, P. Alexander, X. Fettweis, and G. Cortés (2018) Modeling surface quantities over Himalaya using the Modèle Atmosphérique Régionale (MAR) Model: multi-decadal simulations and assessment using satellites and in-situ data, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[247] Lyons, H., M. Tedesco, M. G. Cooper, P. M. Alexander, and N. Frearson (2018) Spatial and morphological analysis of cryoconite holes in Kangerlussuaq, Greenland using unmanned aerial vehicle imaging and automated software recognition, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[248] Nusbaumer, J. M., P. M. Alexander, A. N. LeGrande, and M. Tedesco (2018) Evaluating the moisture sources of water vapor and precipitation over Greenland in GISS ModelE2.1, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[249] Porter, D. F., P. M. Alexander, M. Tedesco, B. Smith, and L. Dong (2018) Greenland firn evolution response to changing atmospheric conditions in the MAR surface model, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[250] A. K. Rennermalm, R. Hock, G. Corti, F. Covi, C. Miege, M. Tedesco, J. Kingslake, S. Leidman, X. Fettweis, Meltwater Refreezing in Southwest Greenland Ice Sheet Firn Spatial Variability and Temporal Change Between 1989 and 2017, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[251] Lewis, G.M., Osterberg, E.O., Hawley, R.L, Marshall, HP., Birkel, S.D., Dibb, J., Koffman, B.G., Ferris, D., Tedesco, M., "Effects of Mineral Dust and Black Carbon on Albedo in the Western Greenland Ice Sheet Percolation Zone, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[252] S. Margulis, G. Cortes, Y. Liu, E. Baldo, M. Tedesco and M. Linares, Toward a High Mountain Asia Snow Reanalysis, Fall 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.

[253] Tedesco, M., P. Alexander, D. Porter, S. Wang, P. Colosio, L. Dong, X. Fettweis, G. Picard, B. Smith, A. Rennermalm, and R. Ranzi (2019) Surface melting and elevations changes over the Greenland ice sheet: trends, processes and new tools, Program for Arctic Regional Climate Assessment (PARCA) meeting, Earth System Science Interdisciplinary Center, College Park, MD, January 31, 2019.

[254] Alexander, P., L. Koenig, M. Tedesco, and X. Fettweis (2019) Controls on simulation of snow and firn density in the regional climate model MAR, Program for Arctic Regional Climate Assessment (PARCA) meeting, Earth System Science Interdisciplinary Center, College Park, MD, January 31, 2019.

[255] B. Smith, M. Tedesco, Patrick Alexander, Xavier Fettweis and Wendy Ermold, Calibrating and validating firn-densification and SMB modeling using altimetry and radar data, Program for Arctic Regional Climate Assessment (PARCA) meeting, Earth System Science Interdisciplinary Center, College Park, MD, January 31, 2019.

[256] F. Covi, R. Hock, G. Corti, A.K. Rennermalm, M. Tedesco, C. Mi`ege, J. Kingslake, S.Z. Leidman and S. Munsell, Spatio-Temporal Variability of Refreezing in Firn in West Greenland, Program for Arctic Regional Climate Assessment (PARCA) meeting, Earth System Science Interdisciplinary Center, College Park, MD, January 31, 2019.

[257] G. Corti, R. Hock, F. Covi1, T. Kameda, J. Kingslake, S.Z. Leidman, C. Miege, S. Munsell, A. K. Rennermalm, M. Tedesco, Spatio-Temporal Variation of Firn Properties on the Western Greenland Ice Sheet, Program for Arctic Regional Climate Assessment (PARCA) meeting, Earth System Science Interdisciplinary Center, College Park, MD, January 31, 2019.

[258] R. Datta, Tedesco, M. , Agosta, C. , Fettweis, X., Kuipers Munneke, P., van den Broeke, M. , Recent (2015-2017) melt patterns over the Larsen C ice shelf from models and Observations, Program for Arctic Regional Climate Assessment (PARCA) meeting, Earth System Science Interdisciplinary Center, College Park, MD, January 31, 2019.

[259] Corti, G; Hock, R; Covi, F; Kingslake, J; Leidman, S; Miege, C; Rennermalm, A; Tedesco, M. Spatio-Temporal Variations of Ice Lenses in Southwest Greenland. Northwest Glaciologists Conference 2019, OCTOBER 4 - 5, 2019

[260] Ballinger, T.J.; Brasher, J; Hanna, E; Hall, R J; Tedesco, M; Greene, E; Atlantic Arctic Ocean, atmosphere, and sea-ice controls of cold season Greenland coastal air temperatures, 1873-2013. Annual AAG Meeting, April 4-7, 2019, Washington, D.C.,

[261] Rennermalm, A; Hock, R; Corti, G; Covi, F; Miège, C; Leidman, S; Tedesco, M; Kingslake, J; Fettweis, X. Spatial and temporal trends in ice lenses in Southwest Greenland, 1989-2017. AGU Fall meeting , San Francisco, December 2019

[262] Covi, F; Hock, R; Reijme, CH; Rennermalm, A; Tedesco, M; High Resolution Modeling of Subsurface Processes in Firn in Southwest Greenland. AGU Fall meeting , San Francisco, December 2019

[263] Tedesco, M; Moon, T; Alexander, P.; Wang, S.; Colosio, P; Fettweis, X; Francis, J; The exceptional 2019 melting season over the Greenland ice sheet: drivers and implications. AGU Fall meeting , San Francisco, December 2019

[264] Tedesco, M; McAlpine, S; Porter, J. Exposure of properties to the 2018 Hurricane Florence flooding: an expanding bull's-eye perspective. AGU Fall meeting , San Francisco, December 2019

[265] Cooper, M;Smith, LC; Rennermalm, A; Tedesco, M; Muthyala, R; Moustafa, S; Liston, G E; van de Berg,WJ; van den Broeke, M; van Dalum, CT. First measurements of solar light transmission in bare glacier ice: Implications for subsurface meltwater production in the Greenland Ice Sheet ablation zone. AGU Fall meeting , San Francisco, December 2019

[266] Ballinger, T.J.; Hanna, E; Hall, RJ; Tedesco, M; Brasher, S; Ding, Q; Carr, R; Mernild, S; Cappelen, J. *North Atlantic blocking regulates cold season air temperature variability over Greenland coastal and ice sheet ablation areas.* AGU Fall meeting , San Francisco, December 2019.

[267] Alexander, P; Tedesco, M; LeGrande, A; Fischer, E; Wang, S; Fettweis, X; Flanner, M; Kelley, M; Nowicki, S; Schmidt, G; Impact of varying bare ice extent and albedo on Greenland ice sheet SMB in the NASA GISS ModelE GCM. AGU Fall meeting , San Francisco, December 2019.

[268] Wang, S; *Tedesc[3],M; Alexander, P; Xu*' M; C34A-07Spatiotemporal variability of ice algal blooms in southwest Greenland and its impact on bare ice albedo based on MERIS and MODIS satellite observations. AGU Fall meeting , San Francisco, December 2019.

[269] Lyons, H; McCarthy, C; Frearson, N; Tedesco, M; Alexander, P; *Experimental Analysis of Microplastics as Cryospheric Nucleation Sites for Sea Ice Reformation and Impactors of Glacier Viscous Flow Rates.* AGU Fall meeting , San Francisco, December 2019.

[270] Zaima, L; Tedesco, M; Turrin, M. PlasticXSnow: Citizen Science Project to Identify Microplastics in Snow. AGU Fall meeting , San Francisco, December 2019.

[271] Tedesco, M. Sea Level Rise, Coastal flooding and Property Values, Alliance Bersnstein, February 13th, 2019

[272] Tedesco, M; Heal, G; Horton, R; McAlpine, S; Porter, J; Eby, M. Mapping the impact of floods on house markets from space: a test case of Hurricane Florence in 2018. Workshop on Correlated Extremes, May 28 – 30, Columbia University

[273] Tedesco, M. Warmer, wetter and darker: the changing face of the Greenland ice sheet. ESA – Invited Talk. August 14th, 2019.

[274] Tedesco, M. Ocean, climate and ice sheets. (Invited). Explorers Club, June 5th, 2019

[275] Tedesco, M. "Ghiaccio". (Invited) Launching of the Italian book at the Italian Science Festival. November 1, 2019.

[276] Tedesco, M; Heal, G; Horton, R; McAlpine, S; Porter, J; Eby, M. Mapping the impact of floods on house markets from space: a test case of Hurricane Florence in 2018. Workshop on Managed Retreat, June 2019, Columbia University

[277] Tedesco, M; Alexadner, P; Porter, D; Dong, L; Smith, B; Picard, G; Fettwies, G. TOWARD THE COMBINATION OF ELECTROMAGNETIC AND REGIONAL-CLIMATE MODELS TO IMPROVE RADAR AND LIDAR ALTIMETRY ESTIMATES OVER GREENLAND ICE SHEET. ESA Living Planet Conference, May 17 – 19, 2019. Milan, Italy.

[278] Colosio, P; Tedesco,M; Ranzi, R. Melt detection over Greenland and Antarctica from NASA MeASUREs enhanced spatial resolution passive microwave data. PARCA Annual Meeting, January 27-29, 2019, NASA GSFC, Greenbelt, MD

[279] Rennermalm, A; Muthyala, R; Moustafa, S; Smith, L; Mote, T; Leidman, S; Cooper,M; Pitcher,L; Tedesco,M; van As' D. Greenland ice sheet runoff in models and pro- and supraglacial observations. PARCA Annual Meeting, January 27-29, 2019, NASA GSFC, Greenbelt, MD

[280] Tedesco, M; Surface melting and elevations changes over the Greenland ice sheet: trends, processes and new tools. . PARCA Annual Meeting, January 27-29, 2019, NASA GSFC, Greenbelt, MD

[281] Benjamin Eaton Smith, Tyler C Sutterl[2], Patrick Alexander, Marco Tedesco, Brooke Medley and Xavier Fettweis, Evaluating Greenland Surface Mass Balance and Firn Density Models with ICESat-2 altimetry differences, AGU Fall meeting , December 2020

[282] Shujie Wang, Patrick Alexander, Qiusheng Wu, Marco Tedesco, Song Shu, Revealing ice shelf fracture

morphology using ICESat-2 measurements, AGU Fall meeting , December 2020

[283] Jing Xiao[1], Asa K Rennermalm[1], Sasha Z Leidman[1], Federico Covi[2], Regine Hock[2], Kierin Rogers[3], Michael J MacFerrin[4], Clément Miège[1], Marco Tedesco[5], Horst Machguth[6] and C. Max Stevens[7], Decreasing density and ice content in shallow firn cores at DYE-2, Southwest Greenland from 2013-2019, AGU Fall meeting , December 2020

[284] Matthew G G Cooper[1], Laurence C Smith[2], Asa K Rennermalm[3], Glen E Liston[4], Johnny Ryan[2], Dirk van As[5], Marco Tedesco[6] and Lincoln H H Pitcher[7], New Energy Balance Formulation for Greenland's Melting Bare Ice Surface, AGU Fall meeting , December 2020

[285] Paolo Colosio, Marco Tedesco, Roberto Ranzi, Xavier Fettweis, Surface melting over the Greenland ice sheet from enhanced resolution passive microwave brightness temperatures (1979 – 2019) , AGU Fall meeting , December 2020

[286] Patrick M Alexander, Marco Tedesco, Xavier Fettweis, Shujie Wang, Raf Antwerpen, Mark Flanner, Allegra N. LeGrande, Gavin A Schmidt, Implementing a Physically-Based Hyperspectral Snow Albedo Scheme in Regional and Global Climate Models for Improved Ice Sheet Mass Balance Estimates, AGU Fall meeting , December 2020

[287] Mahdi Navari, Steven A Margulis, Marco Tedesco, Xavier Fettweis, Roderik van de Wal, Reanalysis Surface Mass Balance of the Greenland Ice Sheet along K-transect, AGU Fall meeting , December 2020

[288] Helen Lyons, Kostas Tsigaridis, Marco Tedesco, Assessing Atmospheric Transport of Microplastics at a Global Scale Using the NASA GISS Model, AGU Fall meeting , December 2020

[289] Mitchell Thomas[1], Beth Tellman[2], Marco Tedesco[1], Paolo Colosio[3] and Michael S Steckler[4], Cloud Free Flood Mapping : Towards a Radar-Based Approach to Flood Detection for Index Insurance Applications in Northern Bangladesh, AGU Fall meeting , December 2020

[290] Beth Tellman, Tejit Pabari, Mitchell Thomas, Eugene WU, Upmanu Lall, Marco Tedesco, Michael S Steckler, Paolo Colosio, Daniel E Osgood, Melody Braun, Flood Index Insurance Trigger Development with Radar Satellites and News Media in Northern Bangladesh, AGU Fall meeting , December 2020

[291] Max Mauerman, Elizabeth Tellman, Upmanu Lall , Marco Tedesco, Paolo Colosio, Mitchell Thomas, High-Quality Historical Flood Data Reconstruction Using Hidden Markov Models, 8th International Conference on Flood and Water Management, Bangladesh University of Engineering and Technology, March 30th, 2021

[292]Jonathon Preece, Lori Wachowicz, Thomas Mote, Marco Tedesco, Xavier Fettweis, Contrasting the Greenland Ice Sheet surface energy balance response between predominate Greenland blocking patterns. AGU 2021, New Orleans

[293] Patrick Alexander, Allegra LeGrande, Marco Tedesco, Christophe Kittel, Charles Amory, Cécile Agosta, and Xavier FettweisEvaluating Simulated Antarctic Ice Sheet Mass Balance in the NASA GISS GCM, AGU 2021, New Orleans

[294] *Tedesco, Colosio, Cervone,* Computationally Efficient Statistical downscaling of the regional climate model MAR: algorithm optimization, results and potential applications, AGU 2021, New Orleans

[295] Cheng Zheng , Mingfang Ting , Yutian Wu , Nathan T Kurtz , Clara Orbe , Patrick M Alexander , Richard Seager and Marco Tedesco , Turbulent Heat Flux, Downward Longwave Radiation and Large-Scale Atmospheric Circulation Associated with the Wintertime Barents-Kara Sea Extreme Sea Ice Loss Events, AGU 2021, New Orleans

[296] Raf Antwerpen , Marco Tedesco , Xavier Fettweis , Shujie Wang , Patrick Alexander and Willem Jan van de Berg, Assessing Bare Ice Albedo Simulated by MAR on the Greenland Ice Sheet (2000-2020) and Implications for Meltwater Production Estimates, AGU 2021, New Orleans

[297] New computationally e0cient 100 m statistically downscaled Greenland products using the MAR regional Guido Cervone, Pennsylvania State University Main Campus, Department of Geography and Institute for Computational and Data climate model and various remote sensing observations. AGU 2021, New Orleans

[298] Patrick M Alexander , Allegra N. LeGrande , Marco Tedesco , Christoph Kittel , Amory Charles , Cécile Agosta and Xavier Fettweis ,Evaluating Simulated Antarctic Ice Sheet Mass Balance in the NASA GISS ModelE GCM, AGU 2021, New Orleans

[299] Bingkun Luo, Columbia University, Lamont -Doherty Earth Observatory, Palisades, NY, United States, Marco Tedesco, Columbia, Spatio-temporal evolution of surface melting over the Helheim glacier at high spatial resolution using Sentinel-1, enhanced passive microwave data and downscaled model outputs, AGU 2021, New Orleans

[300] Advances in Inversion of Microwave Snowpack Emission Models for Simultaneous Retrieval of Depth, Density and Grain Size , Ardeshir Ebtehaj, Michael T Durand and Marco Tedesco, AGU 2021, New

Orleans

[301] Assessing Climate Gentri/cation in Florida through a new Socio-Economic Physical Housing Eviction Risk (SEPHER) dataset , Marco Tedesco, Jesse Keenan and Carolynne Hultquist, AGU 2021, New Orleans

[302] M. Tedesco, J. Keenan and C. Hultquist, Evidence of Climate Gentrification in Florida's Rental Market , Managed Retreat Conference, Columbia University, June 2021

[303] M. Tedesco, Climate Justice and the SEPHER dataset, Lamont Colloquium , October 2021

[304] Predicting Greenland Ice Albedo Using A Physically-Based Convolutional Long Short-Term Memory Network by Raf Antwerpen et al. - EGU 2023, Vienna

[305] DailyMelt: Diffusion-based Models for Spatiotemporal Downscaling of (Ant-)arctic Surface Meltwater Maps by Björn Lütjens et al. - EGU 2023

[306] Workshop on Machine learning and polar regions, lead organizer [Sept. 2022]

[307] Guest lecturer for Hugo Sarmiento's sustainability class, GSAPP, Fall 22

[308] M. Tedesco, the Sepher dataset, Presentation at the NPCC , Equity Working Group, Mach 2022

[309] M. Tedesco, Greenland and SLR, Presentation at Columbia University to High School visiting Danish Students, March 24, 2022

[310] M. Tedesco et al., UNDERSTANDING DRIVERS OF GREENLAND SURFACE MELTING THROUGH MACHINE LEARNING, GAME THEORY AND ATTRIBUTION ANALYSIS: A TEST CASE AT THE HELHEIM GLACIER, AGU 2022, Fall Meeting, Boston, USA

[311] Chloe Whicker[1], Raf Antwerpen[2], Mark Flanner[3], Adam Schneider[4], Charles S Zender[5], Marco Tedesco[2] and Cheng Dang[6], (Incorporating Physically Based Bare Ice Albedo over Greenland within the Energy Exascale Earth System Model (E3SM), AGU 2022, Fall Meeting, Boston, USA

[312] R. Antwerpen, M. Tedesco, P. Gentin and P Alexander, Bidirectional Long Short-Term Memory Network to Attribute Greenland Ice Albedo Variability to Specific Drivers, AGU 2022, Fall Meeting, Boston, USA

[313] Bingkun Luo and M. Tedesco, High resolution mapping of surface melting over the Helheim glacier, EastGreenland using Sentinel-1, enhanced passive microwave data and regionalclimate model outputs, AGU 2022, Fall Meeting, Boston, USA

[314] P. Alexander, Y. Wu, C. Zheng, M. Tedesco and M. Ting, Assessing the Short-Term Impact of Atmospheric Aerosols on Arctic Sea Ice Cover, AGU 2022, Fall Meeting, Boston, USA

Opinion Papers, editorials and contribution to Italian newspapers (selected)

- http://www.repubblica.it/ambiente/2016/11/13/news/donald_trump_e_myron_ebell_il_suo_delfino_per_il_clima-151918466/?ref=search
- http://www.repubblica.it/ambiente/2016/12/13/news/noaa_ghiacci_artico_salute-154030405/?ref=search
- http://ricerca.repubblica.it/repubblica/archivio/repubblica/2016/10/23/non-solo-satelliti-ora-ci-tufferemo-sotto-il-gigante22.html?ref=search
- http://www.scienzainrete.it/node/17852
- M. Tedesco, L'Artico in ginocchio, March 2017, BioGeoEco (http://www.bioecogeo.com/2016-lartico-ginocchio/)
- http://www.repubblica.it/ambiente/2017/01/19/news/grido_artico_allarme_cambiamento_climatico-156380147/?ref=HREC1-19
- https://thehill.com/opinion/energy-environment/397660-sea-levels-must-rise-to-the-top-of-the-agenda-in-washington
- https://blogs.scientificamerican.com/observations/searching-for-life-on-mars-through-the-lens-of-greenland/

Academic and professional honors

1999	Winner of PhD scholarship at the University of Potenza (Italy) to be performed at IROE (Florence – Italy) about 'Methods and New Technologies for Environment Monitoring' with Microwave Remote Sensing Group
2000	Winner of a CIMO (Center for International Mobility) and Italian Ministry Foreign affaires grant
2003	Winner of the Student Grant Travel Assistance for IGARSS 2003 – Toulouse and Finalist of the Student Prize Paper Competition – IGARSS 2003 – Toulouse
2005	Recipient of the Outstanding NASA Research Associate Peer Award , Code 614, August
2005	Winner of the Young Scientist award , International URSI General Assembly, New Delhi, October

2008 (through 2013) Recipient of the CUNY 'Salute to Scholars' certificate for outstanding scholarly achievements
2012 National Science Foundation Antarctic Science Medal for Service in Antarctica
2021 The Explorers Club, Fellow

Professional services

Reviewer editorial activities

Reviewer for the following journals (not exhaustive): IEEE Transactions on Geoscience and Remote Sensing and Geoscience; IEEE Remote Sensing Letters; Remote Sensing of Environment; Hydrological Processes; Geophysical Research Letters; Scanning The Journal of Scanning Microscopie; Journal of Climate; International Journal of remote Sensing; The Cryosphere; Antarctic Research; Environmental Research Letters; IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing; Journal of Geophysical Research; Nature; Science; Nature Geoscience;

2014 Editor of the book, *Remote Sensing of the Cryosphere,* Wiley , expected September 2014
2014- Member of the Editorial Board of the Arctic report Card
2012 - 19 Lead author of the Greenland section of the NOAA Arctic Report Card
2007 Editor of the Special issue on Remote Sensing of the Cryosphere, Remote Sensing of the Environment
2008 Editor of the Special issue on Remote Sensing in Hydrological Sciences, Hydrology and Earth System Sciences
2011-13 Section coordinator 'Hydrology and Terrestrial Cryosphere' Section coordinator of the NOAA Arctic Report Card (http://www.arctic.noaa.gov/reportcard)
2015 - 20 Associate Editor – *The Cryosphere*
2016 - Associate Editor - *Frontiers in Earth Science - Cryosphere Sciences*
2016 - 17 Member of the CRYOSPHERE SCIENCES FOCUS GROUP FELLOWS COMMITTEE
2022 - ASSOCIATED EDITOR , PLOS

Conferences, meetings and professional services (selected)

2008 – 2010 Vice-president of the EGU Cryosphere Division
2005 – to date Chair and convener of sessions at several international conferences, among which: European Geophysical Union General (EGU), International Geoscience and Remote Sensing Symposium (IGARSS), American Geophysical Union (AGU) general assembly
2017 Lamont Colloquium (lead coordinator)
2017 Lamont IEDA Advisory Committee
2018 Organizing Commitee of the Workshop on Antarctica Surface Hydrology Workshop at Lamont, February 21 23, 2018
2012 - Reviewer and panelist for NASA, NSF and other international institutions and agencies
2017. Member of the organizing commitee of the conference Regional Sea Level Changes and Coastal Impacts, 1014 July 2017, Columbia University, NewYork (NY)
2018 Lead organizer of the Workshop on Economics and Climate Change: Merging Science and Social Benefits, LDEO, February 2, 2018

Educational and outreach (selected)

- M. Tedesco, the Greenland ice sheet and climate change, Talk at PS 166 School, Upper West Side Manhattan, July 2016
- M. Tedesco, Melting ice sheets and sea level rise, Senate Hearing and Press Roundtable – Washington, D.C., July 13th, 2016
- M. Tedesco, The Greenland ice sheet, Talk at Lamont for High School students, November 17th, 2016
- Organizer of the NASA SMB Greenland Workshop (July 2016). 40 participants

- Organizer of the NASA AMSR Science Team Workshop (September 2016). 20 participants
- Teaching of the short class 'Remote Sensing of the Cryosphere' at the University of Naples, Italy, May 2017
- Invited talk at Ecoart project salon series: Greenland's melting glaciers, Tuesday, May 2, 2017 6:00pm ? 8:00pm 231 10th Avenue New York, NY
- Is this a black phone ? Concepts on hyperspectral knowledge applied to data interpretation, Object America, Parsons School of Design, December 1, 2017
- Talk at PS 166 (middle school) on February 15, 2018 on Climate Change

Media coverage and outreach (selected and most recent)

- **2020-2021**
- https://blogs.ei.columbia.edu/2020/09/22/pod-planet-ep-10-ice-sheet-goeth/
- https://blogs.ei.columbia.edu/2020/10/08/coronavirus-not-slowing-climate-change/
- https://blogs.ei.columbia.edu/2020/10/15/scientists-harness-satellites-track-algae-growth-greenland-ice-sheet/
- https://blogs.ei.columbia.edu/2020/11/05/u-s-leaves-paris-agreement/
- https://blogs.ei.columbia.edu/2020/11/11/bidens-climate-plan-reduce-warming/
- - https://blogs.ei.columbia.edu/2020/11/25/biden-super-team-revive-nasa/
- https://open.spotify.com/episode/3hJeCp8jLc0wNgshd3sJKi?si=giIavUvCS-WZwNBe5-Bc8w&utm_source=copy-link
- https://www.theguardian.com/environment/2020/oct/17/tardigrade-ice-hole-arctic-greenland?CMP=Share_iOSApp_Other
- https://www.youtube.com/watch?v=UULptulrP3o
- https://ctxt.es/es/20201101/Politica/33890/Juan-Bordera-entrevista-Marco-Tedesco-Estados-Unidos-crisis-climatica-petroleo-gas.htm
- https://www.expreso.info/noticias/biblioteca/78968_hielo_viaje_por_el_continente_que_desaparece
- https://www.agenciasinc.es/Entrevistas/El-Artico-tal-y-como-lo-conocemos-va-a-desaparecer
- https://www.wsj.com/articles/two-books-on-travels-in-the-new-north-11607727025
- https://www.nationalgeographic.co.uk/travel/2020/12/best-travel-books-2020
- https://www.washingtonpost.com/weather/2020/09/30/greenland-ice-melt/
- https://insideclimatenews.org/news/08122020/annual-report-card-marks-another-disastrous-year-for-the-arctic/

- **2019-2020**
- https://blogs.ei.columbia.edu/2020/02/20/plastic-production-climate-change/
- https://www.highsnobiety.com/p/slow-factory-study-hall-sustainable-fashion/
- https://magazine.columbia.edu/article/its-snowing-microplastic
- https://blogs.ei.columbia.edu/2019/12/20/plastix-snow-citizen-science-project
- https://www.nytimes.com/2019/12/04/climate/climate-change-acceleration.htm
- https://www.capital.it/programmi/cactus-basta-poca-acqua/puntate/cactus-basta-poca-acqua-del-30-10-2019/https://www.washingtonpost.com/sports/2019/10/16/waters-rise-so-do-concerns-sports-teams-along-coast/?arc404=true
- https://www.ft.com/content/65dbd11a-d9a4-11e9-8f9b-77216ebe1f17
- https://www.cbc.ca/news/canada/north/greenland-heatwave-reaction-1.5242195
- https://www.theguardian.com/us-news/2019/aug/08/alaska-warmest-month-ever-july-2019-sea-ice
- https://abcnews.go.com/International/rapid-melting-greenland-ice-sheet-significant-contributor-rising/story?id=63784264
- https://www.nytimes.com/2019/06/17/climate/greenland-ice-sheet-melting.html
- https://www.nationalgeographic.com/environment/2019/07/greenland-melting-second-time-this-summer-bad/
- https://www.usatoday.com/story/news/2019/08/02/4-million-olympic-pools-how-much-arctic-melted-yesterday/1899006001/
- https://www.scientificamerican.com/article/these-are-the-biggest-climate-questions-for-the-new-decade

Before 2019

- https://phys.org/news/2018-03-science-crystal-clues-climate-watersheds.html

- https://www.nytimes.com/aponline/2018/03/16/us/ap-us-snowflake-hunters.html
- http://www.ldeo.columbia.edu/news-events/x-snow-project-needs-your-help-unlock-secrets-snow
- https://www.vox.com/energy-and-environment/2018/2/27/17053284/arctic-heat-wave-north-pole-climate
- https://www.scientificamerican.com/article/could-more-snow-in-antarctica-slow-sea-level-rise/
- http://www.weathernationtv.com/news/x-snow-project-looking-unlock-secrets-snow/
- http://www.repubblica.it/ambiente/2017/12/06/news/la_groenlandia_si_scioglie_ma_non_tutta_l_acqua_finisce_in_mare-183276219/?ref=RHPPBT-VA-I0-C4-P15-S1.4-F4
- https://www.nytimes.com/interactive/2017/12/05/climate/greenland-ice-melting.html
- https://www.youtube.com/watch?v=qgnvbMwRaf8
- http://www.pbs.org/video/how-warmer-winters-affect-our-planet-iuqxtf/
- http://www.airspacemag.com/history-of-flight/ice-earth-melt-180964752/
- https://www.google.com/url?rct=j&sa=t&url=https://eurekalert.org/pub_releases/2017-07/ssoe-gso070517.php&ct=ga&cd=CAEYACoTOTA1MDc2Mzk0ODc5MTE3NDQwMDIaODRlZmQ2NWQwMDIwNzkwOTpjb206ZW46VVM&usg=AFQjCNHEh0PMZ4PKmggHUP390I7fDRqp4g
- https://www.washingtonpost.com/news/energy-environment/wp/2017/06/26/wildfires-can-cause-glaciers-to-melt-from-over-a-thousand-miles-away-scientists-find/?utm_term=.fdb881ad4c9b
- http://blogs.ei.columbia.edu/2017/06/06/could-climate-change-shut-down-the-gulf-stream/
- http://ricerca.repubblica.it/repubblica/archivio/repubblica/2017/06/03/un-disastro-ma-resto-negli-usa-a-combattere10.html?ref=search
- http://www.corriere.it/esteri/cards/clima-se-usa-escono-cosa-cambia/rischio-emissioni-non-misurabili.shtml
- http://www.lacittadisalerno.it/cronaca/il-mondo-spiegato-ai-bambini-dalla-sentinella-dei-ghiacciai-1.1521782
- http://blogs.ei.columbia.edu/2017/05/05/the-glaciers-are-going/
- http://www.repubblica.it/ambiente/2017/04/21/news/marco_tedesco_salviamo_il_pianeta_anche_da_trump_-163549813/?ref=search
- https://insideclimatenews.org/news/31032017/-climate-change-science-greenland-global-warming-ice-melt
- https://www.washingtonpost.com/news/energy-environment/wp/2017/03/27/one-of-the-most-troubling-ideas-about-climate-change-just-found-new-evidence-in-its-favor/?utm_term=.c51bc14c5903
- http://www.sciencemag.org/news/2017/02/great-greenland-meltdown
- https://www.wired.com/2017/01/trump-names-former-climate-scientist-erik-noble-nasa-advisory-role/
- http://www.washingtonpost.com/sf/business/2016/12/30/with-enough-evidence-even-skepticism-will-thaw/
- https://vimeo.com/194422210/settings
- https://you.columbia.edu/
- http://www.npr.org/sections/thetwo-way/2016/12/13/505434080/scientists-report-the-arctic-is-melting-even-more-rapidly
- http://www.dire.it/06-12-2016/94565-usa-tedesco-columbia-university-trump-demolira-laccordo-sul-clima/

Mentoring and professional support

Researchers

2016- 2021	Dave Porter, Research Scientist (research training)
2016-2022	Elizabeth Fischer, Research Scientist at NASA GISS and LDEO (research training)
2016-2020	Linling Dong (IT staff, (proposal and paper writing; research training)

Postdoc

2016- 2022	Patrick Alexander (proposal and paper writing; research training; improving communication skills; presentetions preparation)
2017 - 2021	Bingkun Luo
2018-2020	Shujie Wang

PhD Candidates

2013 - 2018	Rajashree Datta - Linking tropical climate variability to Antarctic surface processes
2015 - 2020	Alex Boghosian (Co-Mentor) – LDEO
2015-2017	Brice Noel (Utrecht University, Committee member)
2017 - 2020	Gabe Lewis (OSU, Committee member)
2018 - 2022	Federico Covi (UAF, Committee member)
2020 -	Raf Antwerpen (CU, Lead mentor)

Programmers

2013 - Jeyavinoth Jeyaratnam (CCNY/LDEO)
2017 - LingLing dong (LDEO)
2018 - Elizabeth Fischer (CU)

Administrative support

2016 - 2021 Frances Simpson (LDEO)

Research Staff Associates

2017 – 2019 Melisa Linares (LDEO)
2017 - 2019 Jack Day (LDEO)

Alumni

2017 - 2021 Bingkun Luo
2018-2020 Shujie Wang
2013 - 18 Tri Datta
2010 - 15 Patrick Alexander - Improvement and validation of regional climate model over Greenland, PhD
2014 - 15 Erik Ulysses Noble (Mass balance of the Greenland ice sheet), PostDoc
2013 - 16 Laura Larocca (surface energy balance and regional climate modelling), MSc
2014 - 15 Michael Brown (ice sheet hydrology and GIS), MSc
2014 - 16 Erik Orantes (ice sheet hydrology and seismology), MSc
2011- 12 Parag Narvekar (Retrieval of snow water equivalent at global scale), PostDoc
2012 -15 Nicholas Steiner - Remote Sensing of melting over Antarctica through wavelet approaches and active microwave data, PhD
2010 A.B.M. Pathan - Correlation between El Nino and Snow cover area), MSc
2010 Rashmee Pandae - Identificaiton of supraglacial lakes from satellite over Greenland, MSc
2011 Anais Quillet – Relationships between sea ice and Greenland surface mass balance (Visiting student)
2012 Marie Dorleans – Melting over Antarctica from a regional climate model (visiting student)
2011 Gina Stovall - Supraglacial lakes, BS
2011 Tristan Schwartzman - Cryoconite from Greenland and Antarctica, BS

I hereby certify that the information contained in this application is true and correct to the best of my knowledge.

Friday, March 17, 23

Marco Tedesco