

New Jersey Chapter

October 2021 Newsletter
Virtual Meeting October 7th at 12 pm

featuring

Colin Yee
The University of Texas at Austin

An Overview of Thermal Protection Systems and Ablation Phenomena



Meeting Details and Abstract

Virtual meeting log-in details will follow in an email announcement the week of the meeting.



Presentation Abstract:

Thermal protection systems (TPS) are critical in protecting missile and space structural components from the extreme aerothermal environments generated by solid rocket motor exhaust, atmospheric reentry, or hypersonic flight. Reusable TPS consist mostly of ceramics and low density, insulative materials, while sacrificial TPS – generally referred to as ablatives – utilize endothermic decomposition reactions and advection to efficiently remove heat, permitting low weights and reduced back face temperatures. Case studies include legacy glass/phenolic systems in use by the Department of Defense, as well as modern laminate composites and preceramic systems. Characterization methods and ablative material response modeling will be introduced.

Colin Yee is a graduate research assistant working under the supervision of Dr. Joseph Koo at the University of Texas at Austin. He received his BS in Mechanical Engineering at UT Austin in 2012 and started working for Dr. Koo as an apprentice machinist and undergraduate research assistant, developing and manufacturing in-situ ablation sensing systems for testing Carbon/Carbon and Carbon/Phenolic composites. Colin Yee served in the US Navy as a Submarine Officer, then returned to UT Austin in 2019 and received his MS in Materials Science and Engineering in 2021. He currently manages Department of Defense project testing.

UPCOMING SCHEDULE



October 7th, 12pm (Virtual)
Colin Yee – University if Texas/Austin

October 19th – 21st
CAMX – Dallas, TX

November 4th, 12pm (Virtual)

Salvatore Monte - Kenrich Petrochemicals

December 9th, 12pm (Virtual)
To be Announced

Announcements



It's a great time of year to start or renew your SAMPE membership!

Professionals - Use the code AUTUMN for 25% off your annual membership dues

Students - Use the code BACK2SCHOOL to join for just \$10

Recent graduates - Redeem your 1 free year of professional membership!

Questions? Contact Katia Tyra, Membership Manager NA SAMPE

katia@sampe.org 626.521.5571

Click here to join SAMPE or renew your membership



Check out SAMPE's new virtual networking site, SAMPE 365!

This is year-round platform connects innovators of the advanced materials and composites community from the private sector, government, and academia.

Anyone can create an account, but certain premium content will only be accessible to SAMPE members.



Click here for more information

2021 Golf Outing

The 38th annual NJ SAMPE Golf Outing had another great turnout this year.

New Jersey Chapter Attendees were able to fit in some fantastic drives between the occasional rain shower.

We hope you can join us at Picatinny Arsenal Golf Club next year!



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SAMPE Chapter Service Excellence Award Winner:

2002, 2003, 2004, 2005, 2006 (award retired after 2006)

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ISTC – 1981 (Mt. Pocono), 1989 (Atlantic City), 2006 (Dallas), 2009 (Wichita), 2012 (Charleston)

ISEC – 1994 (Parsippany)





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