

4. You Can Connect

(Joyfully!)

Connecting with others through collaboration, participation, and collegiality is central to this teaching philosophy. It is in this synthesizing zone that the qualifying possibility—if not the promise—*joyfully* gets appended to our academic offering “You can connect”. A surprisingly substantial portion of hard physics study, we are delighted to report, can be approached as a *non-zero-sum game*. In the terminology of contemporary (video) “gamer” culture, physics play need not be *PvP* (1 player versus 1 player); it can be *Multi-Player Co-Op* (cooperative among a group). Indeed, animating the exploration conducted by any curious physicist and any vibrant physics class is a pulsing inclination to play.

It turns out, motivation and feedback for countless ways to engage during class can benefit from tactics to which students have grown accustomed in 21st century gameplay. In physics, we find that the key to gaming is not to make your victory predicated on my loss. A fresh element since COVID is the *Points and Participation Game* on which we now heavily rely for synchronous learning—both remotely and in-person (go to website navigation bar and see *Curricular Exhibit IV*. Some Game Portals). According to this system, you earn points (toward your final grade) every time you choose multiple ways to engage in class. The ways range from actually using your voice, to typing something in *direct chat* (if a remote class), to drawing something for everyone, to taking a picture of your class notes, to respectfully correcting the instructor, and so on. A point portal exists in our online classroom management platform for each possible way to engage (in remote or in-person class). Each time you enact any of these ways, you go to the corresponding portal, submit a quick reminder (a sentence, a screenshot) and your points are recorded.

You are encouraged to find the portals and submit to as many as possible for as many points as possible every class day. You can even submit to the *meta-portal* when you have come up with a way to engage that fits your personality, but that has not yet been considered. The *I-contact* portal, for example, came from a quieter student whose powerful facial expressions signaled strong comprehension at key instants—and she knew it.

Among the more unexpectedly enlivening portals is one that perhaps closes the conversational path intended by this statement of teaching philosophy. This is the *Be Wrong; Be Wreally Wreally Wrong* portal. You are encouraged to submit here each and every time you have made a contribution to class discussion that is sufficiently concrete (and gutsy) to have been deemed “wrong” by the instructor. Indeed, you earn points for being wrong. Ultimately, of course, you are earning points for showing the initiative and courage to go public or on-record with your own perspective. Your willingness to be temporarily wrong helps others observe and measure the nothing horrible that has happened in your wake. On the contrary. Your willingness to get out and swing in public only invites more players to the party you and Naila are throwing together. As the laws of physics and the rules of joyful social engagement grow increasingly intertwined, you remain *right*. That is, you remain right here, right now, and right how you ought to be: moving forward with grace through a demandingly human course of scientific study.