

Theme: *Particle Physics in the 2021 Classroom: Diversity, Inclusion, and Virtual Learning*

3 Day Workshop (Format: Virtual)

Approximately 9 to 4 everyday, Lunch 12 to 1.

All times will be flexible EXCEPT Seminars.

8/2/21 Day 1: Virtual Physics Lessons

Time	Activity	Presenter	Zoom Link
9:00 AM	Welcome and Housekeeping Details (QuarkNet Workshop Must-Dos) Note: If you completed a 2019 or 2020 teacher survey, fill out the survey update . If you have not, fill out the full survey .	Ken Cecire, assisted by VT Lead Teachers	Zoom
10:00 AM	Data Portfolio Activities- Presenting Online Updates !	VT Lead Teachers	
11:00 AM	Seminar: Nuclear Experiments (Talk and Q&A)	Prof. Marie Boer	
~12:00 PM	Break for Lunch		
1:00 PM	Demonstration: Google Classroom Z Boson Mass Lab Afternoon work session (planning a virtual/hybrid compatible lesson for YOUR class based on a Data Portfolio activity)	Rebecca Jaronski	
3:30 PM	Lesson Plan Progress Discussion, End First Day	VT Lead Teachers	

8/3/21 Day 2: Virtual Physics Lessons Continued

Time	Activity	Presenter	Zoom Link
9:00 AM	Daily Agenda Background on Neutrinos: Gizmos: Nuclear Reactions NOVA: The Ghost Particle (my video sheet: ☰ Ghost Particle Video Sheet)	VT Lead Teachers	Zoom
9:30 AM	Seminar-Cosmic Rays (Talk and Q&A)	Prof. Shunsaku Horiuchi	
~10:30	Morning Work Session, Lesson Plans	VT Lead Teachers	
~12:00 PM	Break for Lunch		
1:00 PM	Demonstration: Cosmic Ray Online Lesson Demo Work Session: Complete Lesson Plans	Rob Culbertson	
3:00 PM	Lesson Implementation: Practice with a Partner	VT Lead Teachers	

8/4/21 Day 3: Diversity and Inclusion in the Physics Classroom

Time	Activity	Presenter	Zoom Link
9:00 AM	Daily Agenda Demonstration and Presentation: StepUp Lessons	VT Lead Teachers Rebecca Jaronski	Zoom
10:30 AM	Seminar- Low T Detectors (Talk and Q&A)	Prof. Tommy O'Donnell	
~12:00 PM	Break for Lunch		
1:00 PM	Independent Work/Research Session: Create a StepUp style lesson for YOUR subject area/classes <i>Example: Careers in Chemistry and Physics</i>	VT Lead Teachers	
3:00 PM	Lesson Presentation and Implementation: Practice with a Partner End of Workshop! Note: If you completed a 2019 or 2020 teacher survey, fill out the survey update . If you have not, fill out the full survey .	VT Lead Teachers	

The Goal:

Teachers should be leaving this workshop with two planned lessons. One will be a Google Classroom (or other educational platform) ready content-based lesson inspired by the Data Portfolio, and one a content-related inclusion lesson for their classroom based on the StepUp format. This will be especially useful heading into the 2021-22 school year with all the new objectives from pandemic learning. Additionally, the teachers' own content knowledge will be supplemented by participating in seminars from our VT Physics Department!