

Monday, June 26	DSECOP 2023 Data Science in Physics Workshop
9:00 – 9:30	William Ratcliff (NIST, University of Maryland) <i>Opening Remarks</i>
9:30 – 10:30	Mohammad Soltanieh-ha (Boston University) Overview of Fellows' Activity
10:30 – 11:00	COFFEE Break
11:00 – 11:30	Julie Butler (University of Mount Union) Introduction to Data Science Libraries: Using Pandas, Seaborn, and Matplotlib to Analyze and Display Physics Data
11:30 – 12:00	Richard Harry (Tuskegee University) Classification of Refractive Materials: An Introduction Module — Hybrid
12:00 – 1:00	LUNCH
1:00 – 1:30	Maissam Barkeshli (University of Maryland) ML for Physics undergraduate course
1:30 – 2:00	Connor Robertson (New Jersey Institute of Technology) Exploring and predicting projectile motion with drag using time series analysis and forecasting
2:00 – 2:30	Ashley Dale (Indiana University) Connecting Monte Carlo Methods to Modern AI/ML
2:30 – 3:00	Karan Shah (Center for Advanced Systems Understanding) Introduction to Computer Vision algorithms with applications in lab courses
3:00 – 3:30	COFFEE Break
3:30 – 4:00	Joseph Dominicus Lap (Yale University) Symbolic Regression: Laws from Data
4:00 – 4:30	Jacob Hale (DePauw University) Early implementation of modules in a Sophomore/Junior level experimental methods course
4:30 – 5:30	Alexis Knaub (American Association of Physics Teachers) Challenges/Pedagogy

Tuesday, June 27	DSECOP 2023 Data Science in Physics Workshop
9:00 – 9:30	Wolfgang Losert (University of Maryland) Role of Data Science in Intro Physics Course
9:30 – 10:00	William Ratcliff (NIST, University of Maryland) Data Science and the Physics Curriculum
10:00 – 10:30	Mohammad Soltanieh-ha (Boston University) Discussion: Tools
10:30 – 11:00	COFFEE Break
11:00 – 12:00	Linda Hung (Toyota Research) & Jie Ren (Merck) & Valentin Stanev (AstraZeneca) Industry Panel: Preparing Students for Industry — Hybrid
12:00 – 1:00	LUNCH
1:00 – 1:30	Anil Zenginoğlu (University of Maryland) Learning AI from AI
1:30 – 2:00	Chris Orban (Ohio State University) Data Science in Introductory Physics and Physical Science: Ideas from the STEMcoding Project
2:00 – 2:30	Jia-An Yan (Towson University) Development of an Interdisciplinary Scientific Computing and Data Science Course: Challenges, Experiences, and Lessons
2:30 – 3:00	Joseph F Kozminski (Lewis University) Using Data Science in Advanced Physics Laboratories
3:00 – 3:30	COFFEE Break
3:30 – 4:00	Johnny Lin (University of Washington Bothell) Beginning at the Beginning: Teaching Novice Physicists Data Science Programming
4:00 – 4:30	Ivo Dinov (University of Michigan) Data Science Modules Enhancing the Biophysics Curriculum — Hybrid
4:30 – 5:00	Trevor David Rhone (Rensselaer Polytechnic Institute) Machine Learning in Materials Physics Education
5:00 – 5:30	Fellow Discussion Group discussion of DSECOP fellows with the audience

Wednesday, June 28	DSECOP 2023 Data Science in Physics Workshop
9:00 – 9:30	Alexis Knaub (American Association of Physics Teachers) Discussion: Pedagogical considerations and challenges
9:30 – 10:00	William Ratcliff (NIST, University of Maryland) Discussion: What we have learned so far
10:00 – 10:30	Jason Hattrick-Simpers (University of Toronto) Large Language Models – My Best Friend, My Worst Enemy
10:30 – 11:00	COFFEE Break
11:00 – 12:00	Round-Table Action Plan for Data Science Education in the Undergraduate Physics Curriculum
12:00 – 1:00	LUNCH