

| | |
|------------------------|--|
| 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 | Marilena Longobardi (University of Basel) Data Science in Europe |
| 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 | Ji-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 | William Ratcliff (NIST, University of Maryland) Discussion: What we have learned so far |
| 4:00 – 4:30 | Ivo Dinov (University of Michigan) Data Science Modules Enhancing the Biophysics Curriculum |
| 4:30 – 5:00 | Johnny Lin (University of Washington Bothell) Beginning at the Beginning: Teaching Novice Physicists Data Science Programming |

| | |
|---------------------------|---|
| 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) Physics/Data Science |
| 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 |