

Physics Session R

| Room:          | 115 Gates-Thomas  |   |  |
|----------------|---|---|--|
| 1:00 - 1:20 PM | <b>Pritvik Sinhadc</b><br>Robert L. Blinkenberg<br>SURF Fellow          | Energy scale of sphalerons  | Harvey B. Newman<br>Professor of Physics   |
| 1:20 - 1:40 PM | Alyna X. Tang<br>Robert L. Blinkenberg<br>SURF Fellow                   | Developing photon reconstruction algorithm for the muon collider  | Harvey B. Newman  Professor of Physics  Kiley E. Kennedy  Dicke Postdoctoral Fellow in  Physics  |
| 1:40 - 2:00 PM | <b>Katherine A. Avanesov</b><br>Taylor Lawrence SURF<br>Research Fellow | Search for long-lived particles with<br>HCAL segmentation in CMS at the<br>Large Hadron Collider                  | Harvey B. Newman  Professor of Physics  Kiley E. Kennedy  Dicke Postdoctoral Fellow in  Physics  |
| 2:00 - 2:20 PM | <b>Medha S. Ravi</b><br>Carl F. Braun SURF Fellow                       | Photon pointing at a muon collider using 3D ECAL segmentation and machine learning                                | Harvey B. Newman<br>Professor of Physics<br>Kiley E. Kennedy<br>Dicke Postdoctoral Fellow in<br>Physics  |
| 2:20 - 2:40 PM | Zilan Xiong   | Investigating methods for constraining cosmological parameters in the Pantheon+ analysis                          | Charles L. Steinhardt Assistant Professor of Physics, University of Missouri Philip F. Hopkins Ira S. Bowen Professor of Theoretical Astrophysics              |
| 2:40 - 3:00 PM | Mitchell J. Agris   | Integration and testing of<br>components for the ATLAS High<br>Luminosity Upgrade to the Large<br>Hadron Collider | Caterina Vernieri Assistant Professor of Particle Physics and Astrophysics, Stanford University/SLAC Michele Papucci Research Professor of Theoretical Physics |
| 3:00 - 3:10 PM | BREAK   |   |  |
| 3:10 - 3:30 PM | <b>Ahaan Shetty</b><br>Mellon Mays SURF Fellow                          | Phase space formulation of<br>quantum optics for measurement-<br>device-independent quantum key<br>distribution   | Maria Spiropulu Shang-Yi Ch'en Professor of Physics Raju Valivarthi Research Scientist in Quantum Science and Technology                                       |

Shreyas Singh David L. Glackin Memorial 3:30 - 3:50 PM Dispersion compensation for Maria Spiropulu entanglement distribution in Shang-Yi Ch'en Professor of SURF Fellow quantum networks Physics Raju Valivarthi Research Scientist in Quantum Science and Technology Prathwiraj Umesh Visiting Graduate Student in Physics 3:50 - 4:10 PM Karen I. Shekyan Automating the measurement of Maria Spiropulu high rate entanglement at INQNET Shang-Yi Ch'en Professor of W.H. Halpenny SURF Fellow **Physics** Raju Valivarthi Research Scientist in Quantum Science and Technology