

# Physics

Session **U**

Room: 101 Schlinger

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|--------------------|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:30 - 10:50 AM   | <b>Sanzhar Bissenali</b>                                      | Topological phase transitions in three-dimensional quantum spin liquids with neural quantum states | Norman Yao<br><i>Professor of Physics, Harvard University</i><br>Sajant Anand<br><i>Harvard Quantum Initiative Postdoctoral Fellow, Harvard University</i><br>Marco Bernardi<br><i>Professor of Applied Physics, Physics, and Materials Science</i>                                                                |
| 10:50 - 11:10 AM   | <b>Thuwaragesh Jayachandran</b>                               | Cooling a many-body spin system in diamond using optically reset NV centers                        | Norman Yao<br><i>Professor of Physics, Harvard University</i><br>Haopu Yang<br><i>Graduate Student in Physics, Harvard University</i><br>Che Liu<br><i>Graduate Student in Physics, Harvard University</i><br>Andrei Faraon<br><i>William L. Valentine Professor of Applied Physics and Electrical Engineering</i> |
| 11:10 - 11:30 AM   | <b>Margaux H. Wong</b>                                        | SLAC ATLAS ITk pixel testing and beam-induced background in the FCC                                | Charles Young<br><i>Senior Scientist, SLAC National Accelerator Laboratory</i><br>Harvey B. Newman<br><i>Professor of Physics</i>                                                                                                                                                                                  |
| 11:30 - 11:50 AM   | <b>Emily J. Wu</b>                                            | ATLAS ITk pixel testing and laser characterization of the NAPA-p2 monolithic active pixel sensor   | Charles Young<br><i>Senior Scientist, SLAC National Accelerator Laboratory</i><br>Caterina Vernieri<br><i>Assistant Professor of Particle Physics and Astrophysics, Stanford University</i><br>Harvey B. Newman<br><i>Professor of Physics</i>                                                                     |
| 11:50 AM - 1:00 PM | <b>LUNCH</b>                                                  |                                                                                                    |                                                                                                                                                                                                                                                                                                                    |
| 1:00 - 1:20 PM     | <b>Blake W. Hawkins</b><br><i>David C. Elliot SURF Fellow</i> | Classical quantum field theory: A field-ontological interacting many-worlds interpretation         | Charles T. Sebens<br><i>Professor of Philosophy</i>                                                                                                                                                                                                                                                                |

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| 1:20 - 1:40 PM | <b>Ahaan Shetty</b>                                                  | Super-resolution for high pressure quantum sensing with NVs in round-table diamond anvil cells                  | Norman Yao<br><i>Professor of Physics, Harvard University</i><br>Srinivas Mandyam<br><i>Graduate Student in Physics, Harvard University</i><br>Thomas F. Rosenbaum<br><i>President Emeritus; William A. Fowler Professor of Physics, Emeritus</i> |
| 1:40 - 2:00 PM | <b>Amith Varambally</b>                                              | Quantum calorimetry: NV-center-based AC thermometry towards megabar pressures                                   | Norman Yao<br><i>Professor of Physics, Harvard University</i><br>Srinivas Mandyam<br><i>Graduate Student in Physics, Harvard University</i><br>David Hsieh<br><i>Donald A. Glaser Professor of Physics</i>                                        |
| 2:00 - 2:20 PM | <b>Zoe K. Granadoz</b><br><i>The Associates SURF Fellow</i>          | Constraint of coronal temperature and properties of local low-luminosity active galactic nuclei                 | Fiona A. Harrison<br><i>Harold A. Rosen Professor of Physics</i><br>Xiurui Zhao<br><i>Postdoctoral Scholar Research Associate in Physics</i>                                                                                                      |
| 2:20 - 2:30 PM | <b>BREAK</b>                                                         |                                                                                                                 |                                                                                                                                                                                                                                                   |
| 2:30 - 2:50 PM | <b>Idil Doga Turkmen</b><br><i>Robert L. Blinkenberg SURF Fellow</i> | Symmetry-preserving reconstruction of Higgs boson pairs and a controlled test of pretrained jet representations | Harvey B. Newman<br><i>Professor of Physics</i>                                                                                                                                                                                                   |
| 2:50 - 3:10 PM | <b>Damian R. Musk</b><br><i>Robert L. Blinkenberg SURF Fellow</i>    | Observer phases in dS <sub>3</sub> quantum gravity                                                              | Joseph D. Lykken<br><i>Distinguished Scientist, Fermilab Quantum Institute, Fermi National Accelerator Laboratory</i><br>Maria Spiropulu<br><i>Shang-Yi Ch'en Professor of Physics</i>                                                            |
| 3:10 - 3:30 PM | <b>Madeline H. Mooney</b>                                            | Holography in the parafermion SYK                                                                               | Maria Spiropulu<br><i>Shang-Yi Ch'en Professor of Physics</i><br>Joseph D. Lykken<br><i>Distinguished Scientist, Fermilab Quantum Institute, Fermi National Accelerator Laboratory</i>                                                            |