

Physics

Session **Q**

Room: **B125 Baxter**

1:00 - 1:20 PM	Nora K. Kane	Designing a digital twin for Brookhaven National Laboratory's Rapid Cycling Synchrotron as part of the Electron-Ion Collider project	Vahid Ranjbar <i>System Manager, Brookhaven National Laboratory</i> David G. Hitlin <i>Professor of Physics</i>
1:20 - 1:40 PM	Ania Freymond <i>Victor Neher SURF Fellow</i>	Shadow celestial OPEs in 4D asymptotically flat holography	Elizabeth Himwich <i>John Archibald Wheeler Postdoctoral Fellow in Physics, Princeton University</i> David Simmons-Duffin <i>Professor of Theoretical Physics</i>
1:40 - 2:00 PM	Constantin J. Cedillo-Vayson de Pradenne <i>Dale and Suzanne Burger SURF Fellow</i>	Categorification of Stokes coefficients for Brieskorn sphere invariants	Sergei G. Gukov <i>John D. MacArthur Professor of Theoretical Physics and Mathematics</i> Mrunmay Jagadale <i>Graduate Student in Physics</i>
2:00 - 2:20 PM	Shrishti Pankaj Kulkarni <i>Robert L. Blinkenberg SURF Fellow</i>	Lambda-Gray Molasses cooling on the Cesium-133 D ₁ transition line for enhanced loading of atoms in optical tweezer arrays	Manuel A. Endres <i>Professor of Physics</i> Kon Leung <i>AWS Quantum Senior Postdoctoral Scholar Research Associate in Physics</i> Hannah Manetsch <i>Graduate Student in Applied Physics</i>
2:20 - 2:40 PM	Eddily M. De La Cruz <i>Ron Sven Rat and Bfield SURF Fellow</i>	Probing the weak interaction with early universe physics: The effects of sterile neutrinos in hot and dense environments	Chad Kishimoto <i>Associate Professor of Physics and Biophysics, University of San Diego</i> Ryan B. Patterson <i>Professor of Physics</i>
2:40 - 3:00 PM	Hannah J. Rose	Analysis of optical timescales based on ultrastable cryogenic silicon resonators referenced by a strontium lattice clock	Jun Ye <i>Professor of Physics, University of Colorado Boulder</i> Dahyeon Lee <i>Postdoctoral Scholar in Physics, University of Colorado Boulder</i> Nelson Darkwah Oppong <i>Assistant Professor of Physics</i>

3:00 - 3:10 PM	BREAK		
3:10 - 3:30 PM	<i>Hypatia C. Hamkins</i> <i>Samuel P. and Frances Krown</i> <i>SURF Fellow</i>	Determining the extent to which the subgroup of computable elements in the Galois group of the algebraic closure of the rationals is elementary	Russell Miller <i>Professor of Mathematics,</i> <i>Queens College/CUNY</i> Matthew M. Gherman <i>Hearst Postdoctoral Scholar</i> <i>Teaching Fellow in Mathematics</i>
3:30 - 3:50 PM	<i>Amith Varambally</i> <i>The Associates SURF Fellow</i>	Time-dependent Schrödinger equation simulations of Floquet-driven exciton dynamics in monolayer WS ₂ as a platform for carrier-envelope phase-controlled light-matter interaction	David Hsieh <i>Donald A. Glaser Professor of</i> <i>Physics</i> Mingyao Guo <i>Graduate Student in Physics</i>
3:50 - 4:10 PM	<i>Veronica M. Parakhin</i> <i>Class of '36 SURF Fellow</i>	Impact of oscillating magnetic fields on skyrmion configurations	Gil Refael <i>Taylor W. Lawrence Professor of</i> <i>Theoretical Physics</i> Nina Del Ser <i>DFG Postdoctoral Scholar</i> <i>Fellowship Trainee in Theoretical</i> <i>Physics</i>
4:10 - 4:30 PM	<i>John M. Sullivan</i> <i>Samuel P. and Frances Krown</i> <i>SURF Fellow</i>	Pion form factor from a three-point function in lattice quantum chromodynamics	Frank Lee <i>Associate Professor of Physics,</i> <i>George Washington University</i> Mark B. Wise <i>John A. McCone Professor of High</i> <i>Energy Physics</i>