

## Humanities and Social Sciences *AND* Geological and Planetary Sciences

 Session **L**

Room: 104 Watson

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|----------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:00 - 1:20 PM | <b>Elizabeth J. Won</b><br><i>Mr. and Mrs. Robert C. Loschke</i><br>SURF Fellow | Framing artificial intelligence in law through science fiction                                                              | Jennifer A. Jahner<br><i>Professor of English</i>                                                                                                                                                                                                                                                                               |
| 1:20 - 1:40 PM | <b>Aleksandar Marinkovic</b><br><i>Marcella Bonsall SURF Fellow</i>             | Neural mechanisms of context-guided goal pursuit in humans                                                                  | John P. O'Doherty<br><i>Fletcher Jones Professor of Decision Neuroscience</i><br>Sneha Aenugu<br><i>Graduate Student in Social Science</i>                                                                                                                                                                                      |
| 1:40 - 2:00 PM | <b>Yuxin Liao</b><br><i>Guo/Zhao Family SURF Fellow</i>                         | Random utility with aggregated alternatives                                                                                 | Kota Saito<br><i>Professor of Economics</i>                                                                                                                                                                                                                                                                                     |
| 2:00 - 2:20 PM | <b>Kiran K. Pabla</b><br><i>Dr. Judith Goodstein</i><br>SURF Fellow             | Data-driven prediction of land use change using multi-modal machine learning                                                | Hannah Druckenmiller<br><i>Assistant Professor of Economics; William H. Hurt Scholar</i>                                                                                                                                                                                                                                        |
| 2:20 - 2:40 PM | <b>Anna I. Piland</b><br><i>Kiyo and Eiko Tomiyasu</i><br>SURF Scholar          | Genomic and morphological insights into novel spirochete morphotypes occurring with sulfur-cycling microbial sediment rafts | Jared R. Leadbetter<br><i>Professor of Environmental Microbiology</i>                                                                                                                                                                                                                                                           |
| 2:40 - 3:00 PM | <b>Wendy Wang</b><br><i>Holo Family SURF Fellow</i>                             | Cultivation and analysis of aquatic anaerobic oxalotrophic methanogenic microbial communities                               | Jared R. Leadbetter<br><i>Professor of Environmental Microbiology</i><br>Yuk L. Yung<br><i>Professor of Planetary Science; Senior Research Scientist, JPL</i>                                                                                                                                                                   |
| 3:00 - 3:10 PM | <b>BREAK</b>                                                                    |                                                                                                                             |                                                                                                                                                                                                                                                                                                                                 |
| 3:10 - 3:30 PM | <b>Luis Y. Serrano Laguna</b><br><i>Karen and James Cutts</i><br>SURF Fellow    | Remote monitoring of inland water systems and their flux and gas transfer velocities in real-time                           | Woodward W. Fischer<br><i>Jean-Lou Chameau Professor of Geobiology</i><br>John S. Magyar<br><i>Research Scientist in Geology</i><br>Bryn Stewart<br><i>Foster and Coco Stanback Postdoctoral Scholar Research Associate in Environmental Science and Engineering</i><br>Simon Andren<br><i>Graduate Student in Geochemistry</i> |

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| 3:30 - 3:50 PM | <b><i>Elinor J. Holland</i></b><br><i>Rossum Family SURF Fellow</i>                                                | Examining the effect of heterotrophic bacteria and viral lysis on the size and flux of diatom marine snow particles in the biological carbon pump | Victoria J. Orphan<br><i>James Irvine Professor of Environmental Science and Geobiology</i><br>Jeremy E. Schreier<br><i>Postdoctoral Scholar Research Associate in Geobiology</i>                                                                                               |
| 3:50 - 4:10 PM | <b><i>Natalia M. Hernandez</i></b><br><i>Carl F. Braun SURF Fellow/<br/>Caltech-University of Iceland Exchange</i> | Modeling sill deflation and fault slip during caldera collapse at Bárðarbunga, Iceland                                                            | Elias Heimisson<br><i>Assistant Research Professor of Earth Science, University of Iceland</i><br>Gabriele Benedetti<br><i>Graduate Student in Biology, University of Iceland</i>                                                                                               |
| 4:10 - 4:30 PM | <b><i>Stephen W. Goehring</i></b>                                                                                  | Using Raman and optical spectroscopy to isolate the spectroscopic signatures of the rare earth elements                                           | George R. Rossman<br><i>Professor of Mineralogy</i>                                                                                                                                                                                                                             |
| 4:30 - 4:50 PM | <b><i>Priscilla Boo</i></b><br>University of California,<br>Los Angeles                                            | Development of an artificial urine standard for stable calcium isotope analysis for geochemical applications                                      | François Tissot<br><i>Professor of Geochemistry; Investigator, Heritage Medical Research Institute</i><br>Theo J. Tacail<br><i>Postdoctoral Scholar Research Associate in Geochemistry</i><br>Rebecca J. Ryan<br><i>Postdoctoral Scholar Research Associate in Geochemistry</i> |
| 4:50 - 5:10 PM | <b><i>Polaris C. Hayes</i></b><br><i>Marcella Bonsall SURF Fellow</i>                                              | Tracking the movement of the dust clump in the debris disc of Beta Pictoris                                                                       | Konstantin Batygin<br><i>Professor of Planetary Science</i><br>Yinuo Han<br><i>Postdoctoral Scholar Research Associate in Planetary Science</i>                                                                                                                                 |