

10th Annual LLNL/LPC Science and Engineering Seminar Series Theory to Practice: How Science is Done



The National Atmospheric Release Advisory Center Interdisciplinary Science in Support of Public Safety

Dr. Jessica Osuna, Ph.D. Atmospheric Scientist

National Atmospheric Release Advisory Center at LLNL

Monday, October 7, 2019 6:00-7:15 pm Building 2400, Room 2420 Free and open to the public

The National Atmospheric Release Advisory Center is a national support and resource center for emergency planning, real-time assessment, emergency response, and detailed studies of atmospheric releases of nuclear, radiological, chemical, biological, and hazardous natural materials. Located at Lawrence Livermore National Laboratory (LLNL), NARAC provides timely and accurate plume predictions to aid emergency preparedness and response efforts in protecting the public and the environment. In this seminar, Dr. Osuna will describe the process that NARAC employs when responding to a hazardous atmospheric release. She will highlight the multi-disciplinary contributions to NARAC, discuss the response to recent real-world events, and share advancements that NARAC is integrating into the operational approach.



Dr. Jessica L. Osuna is an atmospheric scientist for the National Atmospheric Release Advisory Center (NARAC) at Lawrence Livermore National Laboratory. Dr. Osuna received her B.S. in Atmospheric Sciences at the University of Illinois Urbana – Champaign, and her Ph.D. in Environmental Sciences, Policy, and Management at the University of California – Berkeley. She came to the lab in 2012 as a post-doctoral researcher in the Energy group studying ecosystem dynamics and renewable energy using field measurements and simulations.

Dr. Osuna now leverages her experience in model-measurement synergy as a research and operations scientist for NARAC. NARAC simulates the dispersion of hazardous material in the atmosphere, providing timely and accurate plume predictions to aid emergency preparedness and response efforts. Jessica is the NARAC lead for the DOE's radiological contingency planning in support of the Mars 2020 mission.