

# Socio-Technical Systems:

## Bridging the Scales

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<http://cnls.lanl.gov/annual26>

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Understanding and ultimately controlling the behavior of "agent-based systems" could lead to a more optimal utilization of Earth's resources and to increased global political and economic stability. Although considerable advances have been made in developing theories and experiments to study, understand, and control non-living interacting particle systems, there is very little quantitative understanding and control over systems involving living entities such as the ubiquitous socio-technical systems that surround us. Such agent-based systems have so far eluded any generally accepted, systematic, unifying framework for their description. Nevertheless, gaining this level of understanding and control is extremely important for applications including: political sciences; security sciences; economics; and the more technical human infrastructure systems of electrical power distribution, transportation, communication, etc.

### Open to all:

This conference is open to the interested public

### Organizers:

Eli Ben-Naim,  
Robert E. Ecke,  
Hasan Guclu,  
Rajan Gupta, and  
Zoltan Toroczkai

### Advisory Committee:

Robert J. Hoffman (Nottingham),  
Edward MacKerrow (Los Alamos),  
Paolo Patelli (Los Alamos),  
D.V. Rao (Los Alamos),  
Cathy Wilson (Los Alamos)

### Invited Speakers:

- Robert Axtell**  
(Brookings Institute)
- Chris Barrett**  
(Virginia Tech)
- Stephen Berry**  
(University of Chicago)
- Doyne Farmer**  
(Santa Fe Institute)
- Sam Flaim**  
(Los Alamos National Laboratory)
- Robert Goldstein**  
(Electric Power Research Institute)
- Rajan Gupta**  
(Los Alamos National Laboratory)
- Ira Longini**  
(University of Washington)
- Ben Luce**  
(Los Alamos National Laboratory)
- Kai Nagel**  
(ETHZ)
- David O'Brien**  
(Los Alamos National Laboratory)
- Paul Ormerod**  
(Volterra Consulting, UK)
- Alan Perelson**  
(Los Alamos National Laboratory)
- Sidney Redner**  
(Boston University)
- Uri Shamir**  
(Technion, IIT)
- Walter Short**  
(National Renewable Energy Lab)
- Eric Smith**  
(Santa Fe Institute)
- Rick Vierbuchen**  
(Exxon Mobile)
- Kenneth Werley**  
(Los Alamos National Laboratory)
- Cathy Wilson**  
(Los Alamos National Laboratory)
- Erla Zwingle**  
(National Geographic)

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