



**The Principles of Complexity: Life, Scale, and Civilization**

**August 6 – 8, 2012  
Santa Fe, New Mexico 87501**

**Agenda**

**Monday, August 6, 2012**

Reception: 5.45pm Hotel Santa Fe  
7.00pm Shuttle to the James A. Little Theater

**SFI PANEL DISCUSSION**

Complexity: A Discussion of Life, Scale, and Civilization

**7.30pm James A. Little Theater**, 1060 Cerrillos Road, Santa Fe, NM  
Moderator: David Krakauer *University of Wisconsin, SFI External Professor*  
Panel: Murray Gell-Mann *Santa Fe Institute*  
Sir Christopher Llewellyn Smith *Oxford University*  
Lord Colin Renfrew *University of Cambridge*  
Melanie Mitchell *Portland State University, SFI External Professor*

Shuttle from James A. Little Theater to Hotel Santa Fe

**Tuesday, August 7, 2012**

**DAY 1**

**SANTA FE INSTITUTE  
Robert Noyce Conference Room**

8.15am Shuttle from Hotel Santa Fe to SFI

8.30am – 9.00am **BREAKFAST**

9.00am – 9.15am **Welcome**  
Jerry Sabloff  
*President, Santa Fe Institute*

9.15am – 9.45am **The Global and Urban Energy Challenges**  
Sir Christopher Llewellyn Smith  
*Oxford University*

9.45am – 10.15am **General Discussion**

10.15am – 10.45am	<b>Metabolic Ecology of Humans</b> Jim Brown <i>University of New Mexico, SFI External Professor</i>
10.45am – 11.15am	<b>General Discussion</b>
11.15am – 11.30am	<b>COFFEE BREAK</b>
11.30am – 12.30pm	<b>Complexity and the Future of Learning and Education</b> David Krakauer <i>University of Wisconsin, SFI External Prof.</i> Eric Klopfer <i>Massachusetts Institute of Technology</i> Kurt Squire <i>University of Wisconsin</i>
12.30pm – 1.45pm	<b>LUNCH</b>
1.45pm – 2.30pm	<b>Framing the Rise and Variability of Past Complex Societies</b> Gary Feinman <i>The Field Museum, Chicago</i>
2.30pm – 3.00pm	<b>General Discussion</b>
3.00pm – 3.30pm	<b>TEA</b>
3.30pm – 4.15pm	<b>The Variational Universe: From Strings to Neurons</b> Vijay Balasubramanian <i>University of Pennsylvania</i>
4.15pm – 4.30pm	<b>General Discussion</b>
5.00pm – 5.15pm	Shuttle will leave SFI for the reception at Mari Kooi residence
5.30pm – 7.30pm	<b>COCKTAIL RECEPTION at Mari Kooi Residence</b>
7.00pm and 7.30pm	Shuttle will leave for Hotel Santa Fe

**Wednesday, August 8, 2012**

**DAY 2**

**SANTA FE INSTITUTE  
Robert Noyce Conference Room**

- 8.15am Shuttle from Hotel Santa Fe to SFI
- 8.30am – 9.00am **BREAKFAST**
- 9.00am – 9.10am **Introduction and Recap**  
Geoffrey West *SFI*
- 9.10am – 9.25am **Universal Patterns in the Emergence of Complex Societies**  
Project leader presentation Jerry Sabloff *SFI*
- 9.25am – 10.00am **Faculty, Post Docs, Interns Present Research**  
Scott Ortman *SFI* and Lily Blair *Stanford and SFI*  
Anne Kandler *SFI*  
Paula Sabloff *SFI* and Rob Weiner *Brown University and SFI*
- 10.00am – 10.20am **The Hidden Laws that Pervade Complex Phenomena**  
Project leader presentation  
Geoffrey West and Luis Bettencourt *SFI*
- 10.20am – 10.50am **Post Docs and Students Present Research**  
Marcus Hamilton *SFI*  
Hyejin Youn *SFI*  
Drew Cabaniss *University of North Carolina*
- 10.50am – 11.05am **COFFEE BREAK**
- 11.05am – 11.25am **The Evolution of Complexity and Intelligence on Earth**  
Project leader presentation  
David Krakauer and Jessica Flack  
*University of Wisconsin, SFI External Professors*
- 11.25am – 11.45am **Post Docs and Grad Students Present Research**  
Bryan Daniels *University of Wisconsin*  
Eleanor Brush *University of Wisconsin*
- 11.45am – Noon **Group Discussion**

Noon – 1.00pm

**LUNCH**

1.00pm – 2.00pm

**Complexity Explorer: A Web-Based System for Complexity Education**

Project leader presentation

Ginger Richardson *SFI*

Melanie Mitchell *Portland State University and SFI External Professor*

2.00pm – 2.45pm

**Comments and Observations**

Moderator - Geoffrey West *SFI*

Gary Feinman *The Field Museum, Chicago*

Eric Klopfer *Massachusetts Institute of Technology*

Sir Chris Llewellyn Smith *Oxford University*

Lord Colin Renfrew *University of Cambridge*

Kurt Squire *University of Wisconsin*

2.45pm – 3.30pm

**TEA**

3.30pm – 4.30pm

**Open Discussion: an Assessment of Project Activities, Research Data and Future Direction**

Moderator - Geoffrey West *SFI*

Luis Bettencourt *SFI*

Jim Brown *University of New Mexico, SFI External Prof.*

Jessica Flack *University of Wisconsin, SFI External Prof.*

Murray Gell-Mann *SFI*

David Krakauer *University of Wisconsin, SFI External Prof.*

Melanie Mitchell *Portland State University, SFI External Prof.*

Ginger Richardson *SFI*

Jerry Sabloff *SFI*

4.30pm

**Closing Remarks**

Jerry Sabloff *SFI*

5.00pm

Shuttle from SFI to Hotel Santa Fe Institute

7.00pm

**SPEAKER DINNER**