The Principles of Complexity: Life, Scale, and Civilization

July 31, August 1, 2, 2013
Santa Fe Institute

Agenda

Wednesday July 31, 2013

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

7.30   **Dr. Michael Crow** *President Arizona State University*
                      "New Problems, New Partnerships: What Tomorrow's University Must Be"
                      James A. Little Theater, 1060 Cerrillos Road, Santa Fe

9.00   *Shuttle from James A. Little Theater to Hotel Santa Fe*

Thursday, August 1, 2013
Workshop DAY 1
                      SANTA FE INSTITUTE
                      Robert Noyce Conference Room

8.15am   *Shuttle from Hotel Santa Fe to Santa Fe Institute*

8.30   **BREAKFAST**

9.00   **Jerry Sabloff** *Santa Fe Institute*
                      Welcome and opening remarks

9.15   **Jerry Sabloff** *Santa Fe Institute*
                      Group Introduction

                      Laura Fortunato and Hannah DeRose- Wilson
                      Santa Fe Institute
                      "What is Social Complexity, Anyway?"

                      Paula Sabloff *Santa Fe Institute*
                      "Comparative Analysis of State Formation"
                      "Comparative Analysis of State Hierarchies"

                      Scott Ortman *Santa Fe Institute*
                      "Urban Scaling in the Ancient World: Evidence from Pre-Hispanic Central Mexico"

Eric Rupley *Santa Fe Institute*
"Structural and Dynamic Foundations for the Initial Emergence of the State"

Karl La Favre *Santa Fe Institute /University of California, LA*
"Settlement Patterns of Ancient Titicaca, Perú and Bolivia: The Beginning of a Synthesis"

10.45　　　　　　　**COFFEE BREAK**

11.00am – 12.30pm　　　**Geoffrey West and Luis Bettencourt** *Santa Fe Institute*
Group Introduction

Clio Andris *Santa Fe Institute*
"Regularities and Patterns in the US Inter-urban Migration System"

Yaoli Wang *University of Georgia-Athens*
"Spatializing Social Networks in an Urban Context"

Marcus Hamilton *Santa Fe Institute*
"Scaling the Size and Dynamics of Publicly–traded Firms and Markets

Madeleine Daepp *Washington University-St Louis*
"The Lifespan of Publicly Traded Companies"

Chris Kempes *Massachusetts Institute of Technology*
"Predicting Detailed Forest Structure from General Scaling Laws and Local Resource Limitations."

12.30　　　　　　　**LUNCH**

1.30　　　　　　　**Jessica Flack**
Univ. of Wisconsin - Madison,
The Center for Complexity & Collective Computation (C4)
Group Introduction Part 1

Eddie Lee *Univ. of Wisconsin - Madison, (C4)*
"Regularities of Macroscopic Observables"

Eleanor Brush *Univ. of Wisconsin - Madison, (C4)*
"Consensus Formation as a Mechanism for Producing New Temporal and Spatial Scales"

Philip Poon *Univ. of Wisconsin - Madison, (C4)*
"Niche Construction and Macroscopic Tuning via Adaptive Learning Rules"

David Krakauer *Univ. of Wisconsin - Madison, (C4)*
Group Introduction Part 2

Chris Ellison *Univ. of Wisconsin - Madison, (C4)*
"Inferential Evolution and the Complexity of Life"

Bryan Daniels *Univ. of Wisconsin - Madison, (C4)*
"Criticality and Information Flow in an Adaptive System"

Evandro Ferrada *Santa Fe Institute*
"The Simon Modularity Principle"

3.00	**TEA**

3.30   **Melanie Mitchell** *Portland State University*
Group Introduction

David Feldman *College of the Atlantic*
"A Massive Open Online Course (MOOC) on Dynamics and Chaos"

John Driscoll *Portland State University*
"Fractals, Biological Scaling and Urban Scaling"

4.30   **Recap of the day**

5.30   **Cocktails**

6.00   **Dinner at Santa Fe Institute**

7.30 and 8.00   *Shuttle will leave for Hotel Santa Fe*

Friday, August 2, 2013
Workshop DAY 2

SANTA FE INSTITUTE
Robert Noyce Conference Room

8.15am	*Shuttle from Hotel Santa Fe to Santa Fe Institute*
8.30	**BREAKFAST**
9.00	**Geoffrey West** Introduction and Recap
9.10	**Krakauer/Flack Group Discussion** Moderated by Melanie Mitchell
11.00	**COFFEE BREAK**
11.15	**Sabloff Group Discussion** Moderated by Luis Bettencourt
Noon – 1.00pm	**LUNCH**
1.00	**West/Bettencourt Group Discussion** Moderated by David Krakauer
3.00	**TEA**
3.30	**Richardson/Mitchell Group Discussion** Moderated by Jerry Sabloff
4.30	**Jerry Sabloff** Closing Remarks
5.00	*Shuttle will leave for Hotel Santa Fe*