# Extending the Reach of Info-Metrics to Dynamics and Non-Hierarchical Complex Systems, Working Group March 15-16, 2018

## **Agenda**

### Thursday, March 15, 2018

8:15 Hotel Santa Fe Shuttle departs hotel to Santa Fe Institute

8:30 – 9:00 Breakfast at Santa Fe Institute

Day 1: 9:00AM - 9:20AM

Opening Session: Info-Metrics and Complexity

Amos Golan and John Harte

Day 1: 9:20AM – 12:00PM (with 30 minutes break in the middle).

Morning: Individual Presentations (At most 20 Minutes/person).

The Presentation should be an 'introduction' and summary of the individual's research with an emphasis of how it is related to the Working Group main focus. Please use the second part of your presentation to provide your view about Main Question 1, or 2 (or both) and the way you will go about attacking it.

(Power Point is fine, but keep in mind that you have no more than 20 minutes!)

<u>Note</u>: Remember this working group is inherently interdisciplinary. The connecting thread is info-metrics and information theory in conjunction with complex systems. Therefore, prepare your presentation to an interdisciplinary group that is highly quantitative.

Morning Speakers (in order)

Moderator: John Harte

Duncan Foley
Nataly Kravchenko-Balasha
Robin Lumsdaine
Steve Pincus
Erica Newman
Ilya Nemenman
John Harte

Day 1: 12:00PM - 1:00PM Lunch

### Day 1: 1:00PM - 3:00PM

Individual Presentations Continues (in order)

Moderator: Andy Rominger

Richard J. Williams Elizabeth Roberto Mike Stutzer Ariel Caticha Pablo Marquet

3:00PM - 3:30PM Coffee Break

3:30PM - 5:10 PM

*Individual Presentations Continues (in order)* 

Moderator: Robin Lumsdaine

Steve Presse Sherman Robinson Andy Rominger Amos Golan

#### 5:10PM – 5:40PM Group Discussion (Conditional on Time Availability)

Moderator: Duncan Foley

We will concentrate on Main Questions 1 and 2 as well as on the Three Basic Questions:

- 1. What is complexity?
- 2. Can we refine the connection between information and complexity?
- 3. Can info-metrics help clarify the flavors of complexity?

5:40 Hotel Santa Fe Shuttle departs Santa Fe Institute

7:00PM Group Dinner at La Choza, 905 Alarid Street (505) 982-0909

#### Friday, March 16, 2018

8:15 Hotel Santa Fe Shuttle departs hotel to Santa Fe Institute

8:30 – 9:00 Breakfast at Santa Fe Institute

Day 2: 9:00AM - 10:30AM

Open Discussion: Question 1

Moderator: Ariel Caticha

10:30AM - 11:00AM Coffee Break

11:00AM - 12:30PM

Open Discussion: Question 2

Moderator: Erica Newman

12:30PM - 1:30PM Lunch

1:30PM - 3:00PM

Open Discussion: info-metrics and complexity (Thoughts of 'putting it all

together')

Moderator: Amos Golan

To prepare for that discussion (which is based on the previous sessions) we will try to reach the group's goal by outlining and sketching together a journal article (or a major talk) on the topic of Extending the Reach of Info-Metrics to Dynamic and Non-Hierarchical Complex Systems.

3:00PM - 3:30PM Coffee Break

3:30PM - 5:00PM

Conclusions and Plans for Future

Moderator: Andy Rominger

Each person provides her/his conclusions in no more than 5 minutes. Then, open Discussions (including suggestions for specific actions and future activities/research). John/Amos/Andy will conclude.

5:00 Hotel Santa Fe Shuttle departs Santa Fe Institute