NASA PCE_3 Virtual Workshop 2022
Nano-to-Cosmic Studies of Complex Systems

Information, code of conduct & registration:
prebioticchem.info/workshops/workshop2.html

Day 1 – October 19th, 2022 (all indicated times are US Eastern time zone)

8:50-9:00AM Opening Remarks (Zach Adam and Jennifer Glass)

Session 1. Early Earth as a Complex System (Jun Korenaga and Andy Ridgwell)

9:00-9:10AM Andy Ridgwell (University of California Riverside, USA)

9:10-9:40 Stephanie Olson (Purdue University, USA)

9:40-10:10 Linda Sohl (Columbia University & NASA Goddard, USA)

10:10-10:30 Q&A

10:30-10:40 Jun Korenaga (Yale University, USA)

10:40-11:10 Beth Ann Bell (University of California Los Angeles, USA)

11:10-11:40 Kevin Zahnle (NASA Ames Research Center, USA)

11:40-12:00 Q&A

Session 2. Systems Chemistry: Tools and Analyses (Irene Chen and Nita Sahai)

1:00-1:22PM Nori Ichihashi (The University of Tokyo, Japan)

1:22-1:45 Saidul Islam (University of Technology Sydney, Australia)

1:45-2:07 Wilhelm Huck (Radboud University, Netherlands)

2:07-2:30 Felix Mueller (Ludwig-Maximilians-Universität München, Germany)

2:30-2:52 Jason Greenwald (ETH Zürich, Switzerland)

2:52-3:15 Nita Sahai (University of Akron, USA)

3:15-3:37 Libusha Kelly (Albert Einstein College of Medicine, USA)

3:37-4:00 Ulrich Gerland (Technische Universität München, Germany)

4:00-5:00PM Discussion Session, led by:

Moran Frenkel-Pinter (Hebrew University, Israel)

Sudha Rajamani (Indian Institute of Science Education and Research, India)

Kristin Johnson-Finn (Rensselaer Polytechnic Institute, USA)

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Day 2 – October 20th, 2022 (all indicated times are US Eastern time zone)

8:50-9:00AM Opening Remarks (Zach Adam and Jennifer Glass)

Session 3. Network Theory, Tools, and Applications (Zach Adam)

9:00-9:45AM	*Ginestra Bianconi (Queen Mary University, UK)*
9:45-10:30	*Dmitry Krotov (MIT-IBM Watson Lab, USA)*
10:30-11:15	*Madhurima Nath (Slalom, USA)*
11:15-12:00	*Fang Liu (Emory University)*
	Q&A

Session 4. Complex Systems Theory and Statistical Analyses (Ella Gale and Juan Pérez-Mercader)

1:00-1:30PM	*Ella Gale (University of Bristol, UK)*
1:30-2:00	*David Spivak (Massachusetts Institute of Technology, USA)*
2:00-2:30	*Claudius Gros (Goethe University Frankfurt, Germany)*
2:30-3:00	*Juan Pérez-Mercader (Harvard University, USA)*
3:00-3:30	*Eric Chaisson (Harvard University, USA)*
3:30-4:00	*Panel Discussion*
	Q&A

Day 3 – October 21st, 2022

9:00AM-4PM Open Discussion, Breakout Groups, and Synthesis (not broadcasted)

Examples of topical questions include:

What are the biggest challenges to designing and interpreting systems chemistry experiments?

What chemical or physical metrics are likely to capture a capacity for 'complex' behavior?

How can disparate efforts in prebiotic chemistry be compared and connected in meaningful ways?

What are the strengths and weaknesses of characterizing prebiotic scenarios as reaction networks?