Abstract Submission is Now Open!

Call for Papers – Duke Forest Conference 2016 (DFC 2016)

Conference Theme: Economics in the Era of Natural Computationalism and Big Data: A Conference in celebration of the 50th anniversary of the "Theory of Self-Reproducing Automata" (by John von Neumann)

Venue: Hilton Garden Inn Durham Southpoint, Durham, North Carolina, USA

Date: Nov 11-13, 2016

URL: http://www.aiecon.org/conference/dfc2016/

Keynote Speakers

Robert Axtell, George Mason University
Bruce Caldwell, Duke University
Claudio Cioffi-Revilla, George Mason University
John Davis, Marquette University
John Duffy, University of California, Irvine
Norman Greenburg, West Michigan University
Huan Liu, Arizona State University
Barkley Rosser, James Madison University
John Staddon, Duke University
Leigh Tesfatsion, Iowa State University

Since publication of his magnum opus, The Theory of Self-Reproducing Automata, von Neumann's influence over the entire scientific world in terms of computing and computation has been monumental for more than half a century. This includes economics. In addition to von Neumann's ideas dominating the development of computing machines during the last half a century, his attempt to develop a general theory of automata has also motivated and facilitated active interdisciplinary conversations among sciences, social sciences, computer sciences, and recently, humanities. The latter phenomenon is known as natural computationalism.

In year 2002, through Philip Mirowski's Machine Dreams, von Neumann's influence on the theory of automata became better known to economists. Twelve years after Machine Dreams, two MIT Sloan School economists, Erik Brynjolfsson and Andrew McAfee published The Second Machine Age (the second industrial revolution). The digital society has been understood as an outcome as well as a process of the second industrial revolution. It is frequently characterized by its production of big data. However, big data is no longer just about data. The fact that now users can supply their own contents, which is the essential idea of Web 2.0, has fundamentally changed what we know as "data", the pooling and use of data, and what we understand as "knowledge". The trend that big data is accepted as a standard type of data in economics and social sciences has made social sciences naturally more computational and, in a sense, more behavioral.

The theme of Duke Forest Conference 2016 is Economics in the Era of Natural Computationalism and Big Data. Within the ambient of the forest of data, the conference aims to discover the answer for the following questions. First, how economics, specifically behavioral and computational economics, can help data analytics in mining information and knowledge from big data; second, how bigdata phenomena can present economists challenging research questions, new research opportunities, and methodological innovations. For the latter, we further ask how computer simulation, laboratory experiments, field study, questionnaires may evolve or co-evolve with the presence of big data.

With the above core issues, studies in each of the aforementioned fields, but not limited to, empirical economics, behavioral economics, experimental economics, on-line gaming experiments, neuroeconomics, computational economics, agent-based simulation, econometrics, history of economics, data science, and other related disciplines, such as artificial intelligence, psychology, cognitive sciences, digital physics, computational social sciences, and digital humanities are also welcome.

Organized Special Sessions:

In addition to the general sessions, the conference will also have the following themed special sessions:

 Cosmos + Taxis Sponsored Session on Hayekian Political Economy (Organizers: David Emanuel Andersson and Leslie Marsh)

- 2. <u>JEM-Sponsored Session on Big Data and Economic Methodology</u> (Organizers: John B. Davis, D. Wade Hands and Shu-Heng Chen)
- 3. Special Session on Linguistics and Cultural Analytics (Organizers: Michael Gavin and William Kretzschmar)

Post-Conference Publications:

Selected high-quality papers from DFC2016 will have the opportunity to be published in the special issues of the following journals:

- International Journal of Business and Economics
- International Journal of Microsimulation
- New Mathematics and Natural Computation
- <u>Journal of Economic Methodology</u>

Important Dates:

July 1, 2016, Abstract and 3-page extended abstract submission deadline August 15, 2016, Notification of decisions on submitted abstracts due September 4, 2016, Discounted early registration deadline October 7, 2016, Presenter Registration Deadline November 11-13, 2016, DFC 2016 Conference

Paper Submission:

The paper submission system is available at https://easychair.org/conferences/?conf=dfc20160

Sponsors:

AI-Econ Research Center
Cosmos + Taxis
Duke University
International Journal of Business and Economics
International Journal of Microsimulation
Journal of Economic Methodology
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The Society of Mathematical Uncertainty