

MIT Lincoln Laboratory

# GRAPH EXPLOITATION SYMPOSIUM

- Preface
- Acknowledgments
- Agenda



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**16–17 April 2013**

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## Graph Exploitation Symposium



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# PREFACE

## Graph Exploitation Symposium

The GraphEx Symposium brought together leading experts from universities, industry, and government to discuss the latest research and future directions in network science and analysis. The event was limited to a small group of invited attendees. The symposium took place at the MIT Endicott House.

## Symposium Highlights

The two-day technical program topics of interest included:

- Models of real-world network phenomena
- Methods and analysis for graph-based datasets
- Inference, visualization, and computation techniques for large-scale networks
- Construction of networks from real-world data
- Challenge problems for the next decade

*Group Photograph* of the GraphEx Symposium attendees

*Report Documentation and Signature Pages*

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# ACKNOWLEDGMENTS

## **Organizers**

### *Chair*

Benjamin Landon  
Albert Reuther

MIT Lincoln Laboratory  
MIT Lincoln Laboratory

### *Technical Co-Chairs*

Peter Jones  
Benjamin Miller

MIT Lincoln Laboratory  
MIT Lincoln Laboratory

## **Technical Committee**

Tanya Berger-Wolf  
Nadya Bliss  
Robert Bond  
Rajmonda Caceres  
David Martinez  
Matthew Schmidt  
Carey Schwartz

University of Illinois at Chicago  
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16 April 2013

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## AGENDA

### 16 April 2013

01	<i>Symposium Overview</i>	B. Landon	MIT Lincoln Laboratory
02	<i>Analyzing, Modeling, and Generating Big Networks</i>	A. Pinar	Sandia National Laboratories
03	<i>Vertex Nomination</i>	G. Coppersmith	John Hopkins University COE
04	Day 1 Keynote <i>Complex Networks: From the Structure of the WWW to Cellular Organizations</i>	A-L. Barabási	Northeastern University
05	<i>Co-clustering Exchangeable Array and Graph Data</i>	D. Choi	Carnegie Mellon University
06	<i>Covert Network Detection</i>	S. Smith	MIT Lincoln Laboratory
07	<i>Hard Limits of Structure Identification in Networks</i>	R. Nadakuditi	University of Michigan

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## AGENDA

### 17 April 2013

- |    |  |                |                                      |
|----|--|----------------|--------------------------------------|
| 01 | Day 2 Keynote<br><i>GEOINT Forward:<br/>Evolving Our Peripheral Vision</i>           | T. Cope        | NGA InnoVision                       |
| 02 | <i>Performance Analysis of Graph Algorithms<br/>on Large-Scale Parallel Machines</i> | F. Petrini     | IBM                                  |
| 03 | <i>Dealing with Uncertainty in Massive<br/>Network Data</i>                          | N. Arcolano    | MIT Lincoln Laboratory               |
| 04 | <i>On the Well-Posedness of Network Analysis</i>                                     | S. Bhowmick    | University of Nebraska<br>at Omaha   |
| 05 | <i>Graphs and the VAST Challenges</i>  | G. Grinstein   | UMass Lowell                         |
| 06 | <i>Distributed Graph Partitioning<br/>and Factorization</i>                          | A. Smola       | Carnegie Mellon<br>University        |
| 07 | <i>Analysis of Dynamic Networks:<br/>From Data Collection to Meaningful Insight</i>  | T. Berger-Wolf | University of Illinois<br>at Chicago |
| 08 | <i>Exploratory Analysis of the U.S. Airport<br/>Network</i>                          | V. Mehta       | MIT Lincoln Laboratory               |