

MIT Lincoln Laboratory

GRAPH EXPLOITATION SYMPOSIUM

- Preface
- Acknowledgments
- Agenda



17–18 April 2012

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ESC-EN-HA-TR-2012-101

Issued: 15 August 2012

Prepared with support of the Office of Naval Research under Air Force Contract FA8721-05-C-0002.

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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

Report Documentation and Signature Pages

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ACKNOWLEDGMENTS

Organizers

Technical Co-Chairs

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Benjamin Landon

MIT Lincoln Laboratory
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Technical Committee

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01	<i>Graph Exploitation Symposium Overview</i>	N. Bliss	MIT Lincoln Laboratory
02	<i>Symposium Keynote Secondary Actors and Communicative Reach</i>	K. Carley	Carnegie Mellon University
03	<i>Analysis of Dynamic Social Networks</i>	T. Berger-Wolf	University of Illinois at Chicago
04	<i>Cascades in Networks and Aggregate Volatility</i>	A. Ozdagler	MIT
05	<i>Connectivity and Resilience of Large-scale Wireless Networks: A Percolation View</i>	E. Yeh	Northeastern University
06	<i>Context-Sensitive Detection of Local Community Structure</i>	K. Branting	MITRE
07	<i>Distributed Storage and Interactive Analytics for Graph-Structured Data</i>	A. AuYoung	Hewlett-Packard
08	<i>Diffuse Interface Methods on Graphs for Classification of High Dimensional Data</i>	A. Bertozzi	UCLA
09	<i>Rethinking Network Structure: The Role of Dynamic Interactions in the Analysis of Network Structure</i>	K. Lerman	University of Southern California
10	<i>Social Networks and Data Processing</i>	D. Shah	MIT
11	<i>Graph Exploitation Testbed</i>	P. Jones	MIT Lincoln Laboratory

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|----|--|----------------|---------------------------------|
| 01 | Symposium Keynote
<i>Null Models for Network Data</i> | P. Wolfe | University College
London |
| 02 | <i>Influence Propagation in Large Graphs—
Theorems and Algorithms</i> | C. Faloutsos | Carnegie Mellon
University |
| 03 | <i>Detection of Anomalous Events in
Large-Scale Graphs</i> | M. Schmidt | MIT Lincoln Laboratory |
| 04 | <i>Theoretical and Statistical Formulations of Link
Prediction Heuristics</i> | D. Chakrabarti | Yahoo! Inc |
| 05 | <i>Community Detection: A Bayesian Approach
and the Challenge of Evaluation</i> | C. Phillips | Sandia National
Laboratories |
| 06 | <i>Heterogeneous Graphs in Social Business</i> | K. Varshney | IBM |
| 07 | <i>Multiple Media Content Graphs:
Design and Experiments</i> | C. Dagli | MIT Lincoln Laboratory |
| 08 | <i>Vertex Nomination via a Consistent Dot
Product Embedding for Stochastic
Blockmodel Graphs</i> | C. Priebe | Johns Hopkins University |
| 09 | <i>Diffuse Interface Methods on Graphs:
Data Clustering and Gamma-Limits</i> | Y. van Gennip | UCLA |