

- PREFACE
- ACKNOWLEDGMENTS
- AGENDA



GRAPH EXPLOITATION SYMPOSIUM

24-25 APRIL 2019

MIT LINCOLN LABORATORY

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- **PREFACE**
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PREFACE

GRAPH EXPLOITATION SYMPOSIUM

The tenth annual Graph Exploitation Symposium 2019 brought together leading experts from universities, industry, and government to explore the state of the art and define a future roadmap in network science. 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:

- Attributed and semantic networks
- Inference under noise and uncertainty
- Models and techniques for dynamic, heterogeneous networks
- Analysis of anomalous, sovert, and hidden communities
- Network visualization and visual analytics



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 - DAY 1 | 24 APRIL
 - DAY 2 | 25 APRIL

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DAY 1 | 24 APRIL 2019

Keynote: Nicholas A. Christakis, *Yale University*
Social Network Interventions

James Keiser, *NSA*
Discovering Relationships in Text: NLP informs SNA

Galen Reeves, *Duke University*
Information-Theoretic Limits of Network Inference Problems

Karl Rohe, *University of Wisconsin*
Understanding Regularized Spectral Clustering via Graph Conductance

Daniel Sussman, *Boston University*
Finding the Way for Graph Matching

Evan Sadler, *Columbia University*
Diffusion Games

Dean Eckles, *MIT*
Stochastic Seeding Strategies in Networks

Panos Toulis, *University of Chicago*
A Graph Theoretic Approach to Causal Inference under General Interference



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DAY 2 | 25 APRIL 2019

Keynote: Josiah Dykstra, NSA

Theory and Practice in Cybersecurity Operations

Ali Pinar, Sandia National Laboratories

SECURE: Science and Engineering for Cyber Security by Uncertainty Quantification and Rigorous Experimentation

Richard Darling, NSA

How Much Structure Exists in my Transactional Data?

Olga Simek, MIT Lincoln Laboratory

Uncovering Human Trafficking Networks through Text Analysis

Evimaria Terzi, Boston University

Active Graph Mining Algorithmic Problems on Team Formation and Engineering

Bailey Fosdick, Colorado State University

Inference for Network Regressions with Exchangeable Errors

Austin Benson, Cornell University

Simplicial Closure and Higher-Order Link Prediction