Welcome to the
Workshop on Statistical Issues in Analyzing Information from Diverse Sources

CCICADA

Command, Control, and Interoperability
Center for Advanced Data Analysis

Before We Start

- Parking – hang tags
- Restrooms – just inside glass doors
- Food – lounge across from elevators
- Rides
- Wifi
- Requests from me…
- May be SRO today
- First "wholly CCICADA" WS

CCICADA
Command, Control, and Interoperability
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What is CCICADA?

- CCICADA is the Command, Control and Interoperability Center for Advanced Data Analysis

- CCICADA is one of two coordinated "halves" of a new Center of Excellence for "Command, Control and Interoperability" founded by DHS

- CCICADA emphasizes data analysis

- The other half of the CCI Center is based at Purdue and emphasizes visualization and visual analytics

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CCICADA Partners

- Alcatel-Lucent Bell Labs
- Carnegie-Mellon Univ.
- Howard University
- Princeton University
- Rutgers University (Lead)
- Tuskegee University
- University of Massachusetts, Lowell
- AT&T Labs - Research
- Geosemble Technologies
- Morgan State University
- Rensselaer Polytechnic Inst.
- Texas Southern University
- University of Illinois, Urbana Champaign
- University of Southern California

Background

- *Many homeland security tasks require the ability to reach conclusions from massive flows of data*
  - Arriving quickly
  - From disparate sources
  - Subject to error/uncertainty

- *Our job is to build the science of data analytics to address this massive flow of data, and to:*
  - Enable rapid situational awareness
  - Assist in identifying new threats
  - Mitigate the effects of natural or man-made disasters
  - Allow homeland security community to work more efficiently
  - Protect the privacy of individuals

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Challenges

- Current methods for extracting, organizing, storing, retrieving information will not scale
- Decision makers need to exploit multiple types of data…and put them *together*
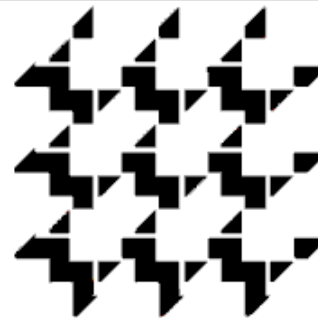
Our Main Activities

- Basic research to advance the field of data science
- Applied research connecting data science to real problems of homeland security
- Educational programs to prepare the homeland security workforce of the future and to build the STEM workforce, more generally
- Technology transfer programs to move some of our work to practical use

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How Does CCICADA Relate to DIMACS?

- Separate but overlapping centers
  - Director, Fred Roberts
  - Share staff and facilities at Rutgers
  - Overlapping but distinct partner institutions
  - Overlapping but distinct faculty & researchers
  - Overlapping interests
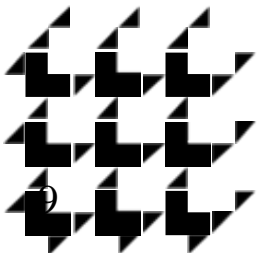 - Co-sponsor activities

DIMACS

Center for Discrete Mathematics & Theoretical Computer Science
Founded as a National Science Foundation Science and
Technology Center

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DIMACS Special Focus on Information Sharing

- Potential future topic for DIMACS activities
- This WS may be viewed as "exploratory"
- Possible topics:
  - Explosion and challenges of data in social media
  - Making inferences in networks
  - Privacy in data sharing
  - Collaboration methods
  - Cross-domain information sharing

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Moral: We have lots of activities, so we hope you'll come back more than once every 17 years