

Call for papers

SIGCOMM 2005 Workshop on Mining Network Data (MineNet-05)

(to be held with SIGCOMM 2005, Aug 20-26, Philadelphia, USA).

Today's IP networks are extensively instrumented for collecting a wealth of information including traffic traces (e.g., packet or flow level traces), control (e.g., router forwarding tables, BGP and OSPF updates), and management (e.g., alarms, SNMP traps) data. The real challenge is to process and analyze this vast amount of primarily unstructured information and extract structures, relationships, and "higher level knowledge" embedded in it and use it to aid network management and operations. The goal of this one day workshop is to explore new directions in network data collection, storage, and analysis techniques, and their application to network monitoring, management, and remediation. The workshop will provide a venue for researchers and practitioners from different backgrounds, including networking, data mining, machine learning, and statistics, to get together and collaboratively approach this problem from their respective vantage points.

We are soliciting original/position papers on topics (including, but not limited to) listed below.

- **Collection, storage & access infrastructure:** platform instrumentation (e.g. multi-modal, multi-resolution sensors), collection techniques (e.g. event sampling, filtering, aggregation, etc.), storage and access (e.g. retention policy, indexing techniques etc.).
- **Network data analytics techniques & tools:** network stream mining, network graph mining, micro-clustering, temporal and statistical correlation, causality tracking, machine learning.
- **Applications to network operations & management:** network problem determination, network reliability and performance, root-cause analysis, security, emerging phenomenon detection (e.g. DDoS, virus/worm, spam etc.), traffic classification.

Of particular interest are (i) new solution techniques as well as applications of existing techniques from data mining, machine learning and statistics to IP network problems, (ii) experiences with the use of such techniques for IP networks, and (iii) open networking problems and challenges that would benefit from the use of such techniques. Selected papers will be forward-looking, with impact and implications for both operational networks and ongoing or future research.

Submission Instructions

Papers should be at most 6 pages long, in standard ACM format (single-spaced, double column, at least 10pt font), and in either postscript or pdf format only. Author names, affiliations, contact information, paper title and paper abstract should also be entered in ascii format at the submission website. Submit papers via the MineNet-05 submission site: <http://www.ece.gatech.edu/conferences/minenet05/index.html>.

Papers will be reviewed single blind. Accepted papers will appear in the workshop proceedings. Authors of accepted papers are expected to present their work at the workshop.

PLEASE NOTE THAT THE SUBMISSION DEADLINE HAS BEEN EXTENDED (please follow details/instructions on the submission site).

Important Dates

Registration Deadline: Wed, April 6, 2005, 11.59 PM PST (Pacific Standard Time)

Submission Deadline: Sat, April 9, 2005, 11.59 PM PST (Pacific Standard Time)

Notification Deadline: May 10, 2005

Camera Ready Deadline: May 30, 2005

Workshop Date: August 26, 2005

Workshop Organizing Chairs

Subhabrata Sen, AT&T Research

Chuanyi Ji, Georgia Tech

Debanjan Saha, IBM Research

Joe McCloskey, Dept. of Defense

Technical Program Committee

Constantinos Dovrolis, Georgia Tech.

Chuanyi Ji, Georgia Tech.

Nick Koudas, Univ. of Toronto

Vipin Kumar, Univ. of Minnesota

Joe McCloskey, Dept. of Defense

Robert Novak, Univ. of Wisconsin-Madison

Rajeev Rastogi, Lucent Bell Labs

John Reumann, IBM Research

Jennifer Rexford, Princeton Univ.

Mathew Roughan, Univ. of Adelaide

Debanjan Saha, IBM Research

Subhabrata Sen, AT&T Research

William Szewczyk, Dept. of Defense

Walter Willinger, AT&T Research

Zhi-Li Zhang, Univ. of Minnesota

Contact Information

For general questions regarding the workshop, please contact the organizers:

Minenet-org@mail.ee.gatech.edu.