The 2012 Conference on Intelligent Data Understanding (CIDU 2012) is organized under the theme of Bringing Data and Models Together and will attract top researchers and practitioners in the field of data mining focusing on applications to Earth & Environmental Systems, Space Science, and Aerospace & Engineering Systems. The Organizing Committee is soliciting theme-oriented papers that advance one of these areas through the use of data mining, machine learning, or computational intelligence techniques. We invite papers that include a clear link between the domain and analysis methods, and papers that give perspectives on methods to bring data-driven and model-based methods together are particularly sought. We also invite submission of 2-page extended abstracts for posters reporting new and interesting results, ideas, or work-in-progress.

All papers and posters will be peer-reviewed based on technical merit, significance, originality, relevance, and clarity. Papers should be no more than 8 pages in two-column format and describe original work not previously published in a refereed conference or journal. The CIDU proceedings will be indexed by IEEE Xplore and DBLP. Selected papers will be invited to be extended for consideration in the journal Statistical Analysis & Data Mining.

**Key Dates**
- **Paper Submissions Due:** June 4, 2012
- **Acceptance Notification:** Aug 3, 2012
- **Camera-Ready Papers Due:** Aug 17, 2012
- **Poster Abstracts Due:** Aug 10, 2012
- **Poster Decision Notification:** Aug 24, 2012

**Organizing Committee**
- **General Chairs:**
  - Nitesh V. Chawla, University of Notre Dame
  - Ashok N. Srivastava, NASA Ames Research Center
- **Area Chairs:**
  - Earth & Environmental Systems – John Williams, National Center for Atmospheric Research
  - Space Science – Michael J. Way, NASA Goddard
  - Institute for Space Studies – Space Science
  - Aerospace & Engineering Systems – Maxime Gariel, Rockwell Collins Control Technologies
- **NESC Chair:**
  - Robert Bell, NASA Engineering and Safety Center
- **Poster Chair:**
  - Kanishka Bhaduri, Netflix Inc.
- **Proceedings Chair:**
  - Kamalika Das, SGT/NASA Ames Research Center
- **Awards Chair:**
  - Nikunj Oza, NASA Ames Research Center
- **Publicity & Communications Chair:**
  - Karsten Steinhaeuser, University of Minnesota
- **Local Arrangements Chair:**
  - Andrew Weekley, National Center for Atm. Research

**Acknowledgments**
CIDU gratefully acknowledges support from the National Center for Atmospheric Research, the IEEE Computational Intelligence Society, University of Notre Dame, and NASA.

**Topics of Interest**

**Methodology Papers**
Algorithmic or methodological innovations that are relevant to one or more application areas or hold such potential. We also invite papers with a data visualization component.

**Earth & Environmental Systems**
- Climate, weather and ecology data sciences
- Climate modeling
- Geographic information systems
- Geospatial intelligence
- Spatio-temporal data mining
- Forecasting and decision support

**Space Science**
- On-board and real-time machine learning
- Decision making under uncertainty
- Constraint-driven data mining and learning
- Event mining and robotic telescopes
- Un/Supervised learning in astrophysics
- Classification in large sky surveys

**Aerospace & Engineering Systems**
- Systems health applications
- Anomaly detection for large datasets
- Text mining in aerospace information systems
- Data driven reliability modeling
- Adaptive system monitoring
- Exploratory mining of aerospace data
- Privacy & security issues in aerospace data
- Statistical process control
- Real-time prediction and decision support

https://c3.nasa.gov/dashlink/events/1/ | CIDUCHairs@gmail.com