

University Affiliate Centers to the Institute for Discrete Science (IDS)

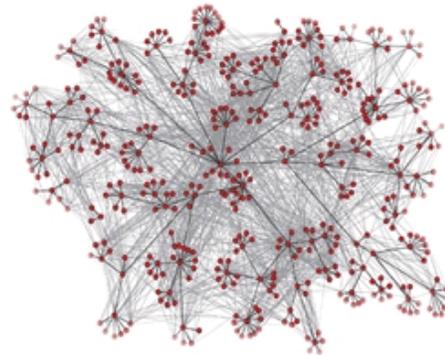
The U.S. Department of Homeland Security (DHS) announced in July 2006 the selection of four universities to conduct research on advanced methods for information analysis and to develop computational technologies to protect the Nation. These University Affiliate Centers and their partners will collaborate with the Institute for Discrete Sciences (IDS; <https://www.llnl.gov/ids/>), a joint project between DHS and several National Laboratories, led by Lawrence Livermore National Laboratory.

The Research

Discrete sciences involve research into methods and technologies to accurately and efficiently analyze and manage information. This includes making sense of vast amounts of dynamically changing data from different sources. This collaborative research effort will develop ways to better analyze and manage information across multiple data media, including structured and unstructured texts, as well as non-textual media such as speech, video and geospatial data.

The University Affiliate Centers will be studying such topics as knowledge representation, natural language processing, text or information extraction, uncertainty quantification, and high-performance computing architectures. These could be applied by the DHS Science and Technology Directorate and its customers to address problems in information analysis, decision support, risk analysis, critical infrastructure protection, bioinformatics and computational biology.

*Data Sciences Technology for Homeland
Security Information Management and
Knowledge Discovery*



The Team

DHS will fund four universities and their partners to collaborate with IDS. They are:

- Rutgers University
- Information Sciences Institute (USC)
- University of Illinois at Urbana-Champaign
- University of Pittsburgh

Why is this Important to DHS?

Congress advised DHS to establish university-based research in “Information Security and Information Engineering.” The University Affiliate Centers to IDS will carry out this mission, by advancing efforts to identify common patterns from numerous, diverse sources of information, which may be indicative of potential threats.

This effort will serve to protect our Nation while also serving to protect our Nation’s data from invasion of privacy. The research will not involve information collection and will only use open-source data.