



Rochester Joint Chapter of the IEEE Computer and Computational Intelligence Societies



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presents

An Overview of Current Research into Recognition and Retrieval of Mathematical Notation

by

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Date: Thursday, November 10, 2011

Time: 6:30 p.m. - networking/pizza, 7:00 p.m. - presentation

Location: at RIT Campus, Golisano Hall -- Building 70, Room 2400

Computer/Computational Intelligence Societies announcements and venue information:

<http://ewh.ieee.org/r1/rochester/computer>

Cost: Free. Open to IEEE members and non-members.

Non-IEEE members will be asked for a voluntary donation for the refreshments/food.



Abstract

A team in the Document and Pattern Recognition Lab at RIT (<http://www.cs.rit.edu/~dprl>) is working on new methods for retrieving math in documents, using mathematical expressions as queries. Our goal is to develop retrieval tools that are intuitive to use, both for experts and (perhaps more importantly) non-experts. An overview of recent and ongoing research in our lab will be presented, including techniques for image-based retrieval of expressions in document images using handwritten and typeset expression images, retrieval using LaTeX strings (e.g. for papers published in the arXiv), and a system for recognizing handwritten mathematical expressions. Methods developed for the project might later be adapted for retrieving other non-textual document elements such as chemical diagrams, tables, and figures.

Speaker's Biography

Richard Zanibbi is an Assistant Professor of Computer Science at the Rochester Institute of Technology (NY, USA). He received his PhD in Computer Science from Queen's University, Canada. His research interests include theories and tools used to construct pattern recognition systems, document recognition and retrieval (particularly for mathematical notation), and CAPTCHAs (tests for distinguishing people from machines online). Dr. Zanibbi also is cross-appointed to the RIT Center for Imaging Science graduate program.