Welcome to the Sixth Volume of the Brooklyn College Computer and Information Science Department Newsletter. We are proud to include the accomplishments of the department’s faculty and students as well. This Newsletter presents activities that primarily have taken place between June 2017 and May 2018.

Faculty Activities

**Distinguished Professor Rohit Parikh**

*Publications*

*Presentations:*
Wollic workshop (London) July 2017
Mathematics of Language (London) July 2017
Bristol University philosophy department, July 2017
Columbia University seminar in logic, probability and games, December 2017
Midwest Political Science Association, Chicago, April 2018

*Doctoral students graduated:*
Yunqi Xue (CS) “Towards Homo Sociologicus”, August 2017
Todd Stambaugh (Math) “Coincidence of Bargaining Solutions and Rationalizability in Epistemic Games”, April 2018
Jongjin Kim (Philosophy), “Morality as Social Software”, May 2018

*Activities:*
Organized *The Logic of Social Networks* with Shweta Jain and Priya Chakraborty as other speakers and Robert Cherry as moderator.
Chaired a meeting at Stanford on Logic and Social Agency.
Advisory Board, Journal of Philosophical Logic
Organizer: Seminar in Logic, Games and Society

**Distinguished Professor Ted Raphan**

*Refereed Journal Publications:*


Conference Papers:

Symposia and Presentations:
Raphan, T. A model of Neurogenic Syncope. Symposium: The Vestibular, Cerebellar, and Sympathetic Systems: Past, Present and Future, "International Conference to Recognize Contributions of Bernard Cohen upon his retirement." Mt. Sinai School of Medicine, April 13, 2018


Editorial Boards:
Member, Editorial Board of Frontiers in Neurology 2015- Present.


Supervision of Students:
Doctoral Students:
Hanon, Jonathan: Fast Rendering of Orbitals, Momentum, and Spin Structure, September 2017- Present

Master’s Students
Diana Barry. A virtual Reality System for Autistic Training, Completed February, 2018

Undergraduate Students:
Eugene Dorokhin. Developing a Recurrent Neural Net for modeling Timing – Aug 2017- Present


Neng-Fa Zhou


Dor Atzmon, Ariel Felner, Roni Stern, Glenn Wagner, Roman Barták, Neng-Fa Zhou: “k-Robust Multi-Agent Path Finding”, SOCS 2017: 157-158

Awards:
PicatSAT won the bronze medal in MiniZinc Challenge 2017, a very influential competition for constraint programming solvers.

Activities:
ICLP’17, AAAI’17, IJCAI’17, PADL’18, ICLP’18, RACA’18, LPOP’18, RuleML’18

Scott Dexter
Publications:
**Presentations:**
Presented "Does TBL Boost Retention for Under-represented Undergraduates in Computer Science?” at the 17th Annual Team-Based Learning Collaborative Meeting. (March 1-3)

**Activities:**
Scott is serving this year and next as Director of the College’s Roberta S. Matthews Center for Teaching

**Noson Yanofsky**

**Publications:**

“Paradoxes, Contradictions, and the Limits of Science” which was originally published in the American Scientist (2016) was published in The Best Writing on Mathematics 2017, edited by Mircea Pitici, (Princeton University Press).


“Galois Theory of Algorithms” was published in Rohit Parikh on Logic, Language and Society Edited by Can Başkent, Lawrence S. Moss, Ramaswamy Ramanujam, (Springer 2017).

**Activities:**
Invited lecturer From February 20, 2017 to February 24, 2017 at Kyushu Institute of Technology (九州工業大学) in Iizuka Japan.

**Dina Sokol**

**Publications:**


**Activities**
Professor Dina Sokol mentored a Masters student, Louise Yan, in collaboration with Dr. Yupu Liang, Director of Bioinformatics Program at the Clinical and Translational Science Center of Rockefeller University. The scope of the project was to do classification on a high dimensional data set (500 questions bleeding related questionnaire with 500 normal and ~100 people with a bleeding disorder). The goal was to find a subset of questions that give us the most prediction power on whether an incoming patient would experience excessive bleeding during an operation. Louise used Decision Trees and Random Forests for classification, and evaluated the sensitivity and specificity of the results.

Professor Sokol has been working with an excellent undergraduate student, Christian Butron on a CISC5001 project. The goal of his project was to analyze the performance of compressed suffix trees (CST) in comparison to uncompressed suffix arrays in a program that implemented the Landau-Vishkin 1989 edit distance algorithm.

Professor Sokol has hosted her collaborators on her BSF grant three times during the Fall semester. Brooklyn College has become an active site for research in Stringology. Professors Amir, Landau, and Geurra visited for lengthy discussions on new research. Two journal papers resulted from the collaboration, and another paper was submitted to a conference.
Jim Cox
Publications:

Activities:
Jim has assumed the responsibilities of Graduate Deputy Chair

Yedidyah Langsam
Publications:
Y. Langsam, Workbook for Java, 2018

Paula Whitlock
Publications:


Activities:

Rivka Levitan
Publications:


Activities:

Panelist, together with Lisa Dallmer of BlackRock, at the April 2018 meeting of the NYC Alternative Investment Roundtable, co-hosted by Bloomberg.

Served on program committees for ICASSP, Interspeech, and NAACL, and was an ad-hoc reviewer for the NSF Computational Cognition Panel.

Her Ph.D. student, Michelle Morales, successfully defended her dissertation in December and is now at IBM.

Devorah Kletenik
Publications:


“Game Development with a Serious Focus.” Devorah Kletenik and Devorah Sturm. CUNY Games Network 4.0, 2018.

Grants:
PSC CUNY Cycle 49 proposal "Symmetric Boolean Function Evaluation" was accepted.
Michael Mandel

Publications:

Book chapters:


Refereed Conference Proceedings:

Workshops:


Grants:

Grant Description: Hearing is central to human interaction, but the hearing process is not easily observed. The objective of this project is to train models to identify portions of speech utterances that are important to their being correctly identified by human listeners, and to use predictions from these models to make automatic speech recognition (ASR) systems more noise robust by focusing on those regions. The ability to identify important regions of an utterance could significantly advance our understanding of healthy and impaired hearing. Improvements in automatic speech recognition would have broader impacts on the 260 million Americans who use smartphones and the $100 billion ASR industry. The educational portion of this project utilizes examples from speech, language, audio, and music processing to attract and retain students in Brooklyn College’s introductory programming course serving a diverse student body along with similar efforts at affiliated high school programs.

Tziporah Halevi

Publications:


Halevi S., Halevi T., Shoup V. and StephensDavidowitz N., “Implementing BP-Obfuscation Using Graph-Induced Encoding”, ACM Conference on Computer and Communications Security (ACM CCS), 2017


Hui Chen

Publications:


Grants:
PSC-CUNY Award # 61067-00 49, for "Building Highly Interpretable IDE Interaction Model from Multi-Datasets", $3,500, 2018 - 2019
BC’s CUNY Hackathon, consisting of Yvan Pangilinan, Kevin Cybura (Hunter College), Hui Lin (Queens College), Christopher Menedes and Truth Opaleye won 3 categories of prizes:
- Best Hack using IBM Cloud Technology
- Best Hack using NYC Open Data
- 1st Place Overall
The team designed a full stack web platform that provides centralized homelessness prevention services to those in need.

Two of our very own Brooklyn College WiCS students, Estefanía Barrón and Frances Shnaidman, won first place and $25,000 in the Standard Chartered Women + Tech4NYC Prize category of the Zahn competition for their app CakeWLK. The app connects college students with new friends via safe, reliable, publicly shared walking routes based on crime statistics. They are conducting experiments and consumer research, such as offering free walks, to find out if there is a need or want for their product.

Science Day

Prof Mandel’s students:
Christian Sarcona: creating private voice recordings using acoustic echo cancellation
Oleksandr Loyko: beamforming with neural networks for multichannel speech recognition
Xiaowen Huang: extracting drum sounds from a song
Dzmitry Kasinet: Concatenative resynthesis for extracting bass parts from songs

End of Year Party

The Computer Science Club, Women in Computer Science Club and the CIS Department sponsored a well-attended and well stocked End of Year Party for graduating seniors on May 15th in SUBO. The students planned the evening and it was quite a fun time with CIS faculty joining in.
Note: All information presented here was conveyed by our colleagues and the Newsletter Editors cannot take responsibility for verifying its accuracy.

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