Call for papers and posters

The 2019 Computational Structural Bioinformatics Workshop (CSBW)

Niagara Falls, New York, September 7-10, 2019
http://www.cs.odu.edu/~bioinfo/index.html

The 2019 Computational Structural Bioinformatics Workshop will be held in conjunction with ACM-BCB. The rapid accumulation of macromolecular structures presents a unique set of challenges and opportunities in the analysis, comparison, modeling, and prediction of macromolecular structures and interactions. This workshop aims to bring together researchers with expertise in bioinformatics, computational biology, structural biology, data mining, machine learning, optimization, and high-performance computing to discuss new results, techniques, and research problems in computational structural bioinformatics.

CSBW invites high-quality original papers and posters on developments in computational problems relating to molecular structure. Authors of accepted papers will be provided approximately 20 minutes to provide an oral summary of their work, with time for questions. At least one author of an accepted paper is required to register for the workshop to present the paper. Registration to CSBW is complementary with registration to ACM-BCB 2019.

Important dates:
Paper submission deadline: June 15, 2019
Notifications sent to authors: July 1, 2019
Camera-ready paper submission: July 8, 2019
Poster (2-page abstract) submission deadline: August 20, 2019
Workshop at ACM-BCB Conference: September 7-10, 2019

Full manuscripts and poster abstracts are being accepted. Both will be published in the conference proceedings. Submitted paper manuscripts should not exceed 8 pages in ACM template on 8.5 x 11 inch paper, and poster abstracts not to exceed 2 pages (see ACM templates at https://www.acm.org/publications/proceedings-template). Submissions are via easychair at https://easychair.org/conferences/?conf=csbw19.

Journal Special Issue:
Selected submissions will be invited to publish extended versions of their papers in a special issue in MDPI **Molecules**. Journals used in previous years included the International Journal of Data Mining and Bioinformatics (2007), BMC Structural Biology (2009, 2012) the Journal of Bioinformatics and Computational Biology (2011), Journal of Computational Biology (2015, 2016) and Molecules (2017, 2018).

CSBW also seeks 2-page poster abstracts on developments or significant works in progress towards computational problems relating to molecular structure. Posters sessions will expand scientific dialogue at the workshop and train students in scientific communication. Authors of accepted posters will have unhurried opportunities to communicate

their results in poster sessions taking place during the workshop. All accepted papers and poster abstracts will be published in the ACM digital library in the proceedings of the ACM-BCB Conference.

Possible topics include, but are not limited to:
- Structure representation
- Structure prediction
- Structure alignment
- Interaction and docking
- Molecular dynamics simulations
- Biomolecular graphics
- Coarse-grained modeling
- Data mining/Artificial Intelligence/Machine learning methods for structural data
- Structural genomics
- High-performance computing in modeling
- Graph theory applied to structural problems
- Optimization in structural problems
- Bio-molecular structure refinement
- Structure-based drug design

Workshop Chairs:
Nurit Haspel, UMass Boston
Dong Si, University of Washington Bothell
Lin Chen, Elizabeth City State University

Keynote Speaker:
TBA

Steering Committee Chairs:
Jing He, Old Dominion University
Brian Chen, Department of Computer Science and Engineering, Lehigh University
Amarda Shehu, George Mason University

Steering Committee:
Willy Wriggers, Old Dominion University
Roland Dunbrack, Fox Chase Cancer Center, Institute for Cancer Research
Vasant Honavar, Dept. of Computer Science, Iowa State University
Robert Jernigan, Iowa State University
Lydia Kavraki, Dept. of Computer Science, Rice University
Anna Panchenko (NIH/NLM/NCBI)
Zhijun Wu, Iowa State University
Yaoqi Zhou, School of Informatics, Indiana University -- Purdue University Indianapolis
Ruth Nussinov, Computational Structure Biology Group, National Cancer Institute, Frederick MD

Contact: For questions regarding the workshop, please email Nurit.Haspel@umb.edu