

2016 Workshop on Computational Structural Bioinformatics

Sunday, December 18, 2016

Co-chairs: Jing He, Kamal Al Nasr, Weitao Sun

8:00 – 10:30 Session 1 Workshop papers Session Chair:
Opening Remarks
Paper 1 (remote presentation) S19206 “An Efficient Method for Validating Protein Models Using Electron Microscopy Data” Kamal Al Nasr, Christopher Jones, Bashar Aboona, and Abdulrahman Alanazi
Paper 2 (remote presentation) S19203 “Uncertainty Quantified Computational Analysis of the Energetics of Virus Capsid Assembly” Nathan Clement, Muhibur Rasheed, and Chandrajit Bajaj
Paper 3 (remote presentation) S19207 “Identifying Amino Acids Sensitive to Mutations Using High-Throughput Rigidity Analysis” Michael Siderius and Filip Jagodzinski
Paper 4 B378 “RNAimage: A Method for Comparison of RNA Secondary Structures using Grayscale Image” Ying Li, Ye He, and Wei Du
Paper 5 S19205 “Community structure partition and key residue interaction pair detection in residue networks” Weitao Sun and Yukun Fan
Paper 6 S19201 “Mining Structure Patterns on the Protein-DNA Interfaces” Qing Sun and Changhui Yan
Paper 7 S19202 “Selecting Near-native Structures From Decoys Using Maximal Cliques” Jinyang Yan, Yonggang Lu, and Jing He
Paper 8 S19208 “CHALLENGES IN MATCHING SECONDARY STRUCTURES IN CRYO-EM: AN EXPLORATION” DEVIN HASLAM, MOHAMMAD ZUBAIR, DESH RANJAN, Abhishek Biswas, and JING HE
Paper 9 B447 “Non-sequential Protein Structure Alignment Based on Variable Length AFPs Using the Maximal Clique” Xingmei Liu, Yonggang Lu, and Hu Cao
Coffee break 10:40-11:00
11:00-12:30 Session 2 Protein/RNA Structure (II) Main conference Papers Session Chair:
Paper 1

B435 "Predicting microRNA-environmental factor interactions based on bi-random walk and multi-label learning" Wei Lan, Jianxin Wang, Min Li, Chengqian Lu, Fang-Xiang Wu, and Yi Pan
B492 "CNNsite: Prediction of DNA-binding Residues in Proteins Using Convolutional Neural Network with Sequence Features" Jiyun Zhou, Qin Lu, Ruifeng Xu, Lin Gui, and Hongpeng Wang
B526 "Deep Convolutional Neural Networks for Protein Secondary Structure Detection in 3D Cryo-Electron Microscopy Images" Rongjian Li, Dong Si, Tao Zeng, Shuiwang Ji, and JING HE
B361 "Symmetrical Rigid Body Parameterization for Biomolecular Structures" Jin Seob Kim and Gregory Chirikjian
B373 "Towards Recognition of Protein Function based on its Structure using Deep Convolutional Networks" Amirhossein Tavanaei, Anthony Maida, Arun Kaniyammattam, and Rasiah Loganantharaj
12:30-1:00 additional discussion

Speaking times:

Each talk is reserved for 15 minutes presentation. Each main-conference talk is 18 minutes.