SIGBio Record

Newsletter of the SIGBio
ACM Special Interest Group

Notice to Contributing Authors to SIG Newsletters

SIGBIO Record - Submission Guidelines

Submission categories

Submissions to the newsletter can be either on a special issue topic or on topics of general interest to the SIGBIO community.

These can be in any one of the following categories:
- Survey/tutorial articles (short) on important topics.
- Topical articles on problems and challenges
- Well-articulated position papers.
- Review articles of technical books, products and .
- Reviews/summaries from conferences, panels and special meetings within 1 to 4 pages [1500-2500 words]
- Book reviews and reports on relevant published technical books
- PhD dissertation abstracts not exceeding 10 pages
- Calls and announcements for conferences and journals not exceeding 1 page
- News items on the order of 1-3 paragraphs

Brief announcements Announcements not exceeding 5 lines in length can simply be sent as ASCII text to the
editors by e-mail. SIGBIO Record publishes announcements that are submitted as is without review.

Announcements cannot be advertisements and should be of general interest to the wider community. The Editor reserves the right to reject any requests for announcements at his discretion.

Authors are invited to submit original research papers or review papers in all areas of bioinformatics and computational biology. The papers published in SIGBioinformatics Record will be archived in ACM Digital Library. Papers should follow the ACM format, and there is no page limitation.

http://www.acm.org/sigs/publications/proceedings-templates

Submissions should be made via email to one of the two editors Pierangelo Veltri (veltri@unicz.it) *(University Magna Graecia of Catanzaro, Italy)- Pietro Hiram Guzzi (hguzzi@unicz.it),or to ACM SIGBio email acmsigbiorecord@gmail.com*

Table of Contents

ACM-BCB 2018 — The 9th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics
Washington DC, Aug 29 - Sept 1, 2018

August 29 – September 01, 2018

ACM BCB 2018 Report of the Event.

The 9th International ACM Conference on Bioinformatics, Computational Biology and Health Informatics:

ACM BCB served as the international forum concerned with Bioinformatics, Computational Biology and Health Informatics event. It involves biologist, cmputer scientists, clinicians and computer engineer researchers to discuss about problems in bioinformatics, healthcare, biological and health related algorithms.

The conference is a premier dissemination forum for interdisciplinary research linking computer science, mathematics, statistics, biology, bioinformatics, biomedical informatics, and health informatics. The past few decades have seen tremendous growth in the scale and complexity of biological and medical data including recent mainstream recognition of big data challenges. This conference serves to showcase leading-edge research on new technologies and techniques around gathering, processing, analyzing, and modeling of data and information for a variety of scientific, clinical, and healthcare applications, from bench to bedside.

The ACM BCB 2018 was organized in Washington DC from August 28th to September 1 by Amarda Shehu from George Mason University, and Cathy Wu from University of Delaware (USA) that served as General Chairs.

ACM BCB brings together researchers, scientists, and practitioners to discuss their latest research and practices. It was organized as follows.

Wednesday Aug. 29 was the Workshop day and there have been the following parallel workshops:

-The Fifth International Workshop on Computational Network Biology: Modeling, Analysis, and Control (CNB-MAC 2018) organized by Prof. Tamer Kaveci et al. This is the workshop

Computational Structural Bioinformatics Workshop (CSBW) organized by Filip Jagodzinsk et al

-7th Workshop on Computational Advances in Molecular Epidemiology (CAME 2018)

Yury Khudyakov

Parallel and Cloud-based Bioinformatics and Biomedicine (ParBio)
Organized by Giuseppe Agapito

Workshop NCI Cloud Resources

Then the program continued after that haveing 7 Tutorials:

Tutorial 1: Modeling Macromolecular Structures and Motions:
Computational Methods for Sampling and Analysis of Energy Landscapes
by Kevin Molloy, Nasrin Akhter, and Amarda Shehu

Tutorial 2: Making Deep Learning Understandable for Analyzing Sequential Data about
Gene Regulation by *Yanjun (Jane) Qi,*

Tutorial 3: Interpretable Machine Learning in Healthcare, by Muhammad Aurangzeb
Ahmad

Tutorial 4: Using BioDepot-workflow-Builder to Create and Execute
Reproducible Bioinformatics Workflows by Ka Yee Yeung

Tutorial T5: Analysis of Sequencing Data: Tamar Sofer, Program in Sleep Medicine
Epidemiology, Brigham and Women's Hospital, Harvard Medical School; Mariaelisa (Misa)
Graff

Tutorial T6: Agile Clinical Decision Support Development and Implementation by Mujeeb A.
Basit

Tutorial T7: Rapidly identifying Disease-Associated Rare Variants using
Annotation and Machine Learning at Whole-genome Scale Online by Alex Kotlar,

Then 3 days of conference have been charachterized by numeourous sections and by
keynotes:

Keynote 1 Sequence, Structure and Network Methods to Uncover Cancer Genes
Mona Singh, PhD, Princeton University

Keynote Talk 2
Huge Cohorts, Genomics, and Clinical Data to Personalize Medicine
Joshua C. Denny, MD, MS, FACMI - Vanderbilt University Medical Center

Keynote Talk 3
The Art of Connectivity Mapping
Avi Ma'ayan

The conference has hosted many events such as NSF-sponsored Student Research
Forum, TCBB Editorial meeting, Women in Bioinformatics and Poster sections.

The program can be foud at http://acm-bcb.org/2018/downloads/ACM-

BCB2018%20Brochure_2018.pdf

In the following some pictures of the conference:

BCB2018%20Brochure_2018.pdf

ACM BCB 2018 Awards

The ACM Best Paper Award went to Miya Govek, Camden Sikes,Layla Oesper in recognition of the Best Paper, "A Consensus Approach to Infer Tumor Evolutionary Histories"

The ACM SIGBio Best Student Paper Award went to Lei Li, Mukul S Bansal In recognition of the Best Student Paper "An Integer Linear Programming Solution for the Domain-Gene-Species Reconciliation Problem"

ACM SIGBio Best Poster Award to Nam Nyugen, Ian Blaby, Daifeng Wang In recognition of the Best Poster"A Manifold Learning Based Approach to Reveal the Functional Linkages Across Gene Networks"

ACM SIGBio Honorable Mention Poster Sharmila Roychoudhoury, Amarda Shehu In recognition of the Best Poster "A Systematic Study of Different Design Decisions in Markov Model-based Analysis of Molecular Structure Data"

ACM SIGBio Honorable Mention Poster to Didier Devaurs, Dinler Antunes, Lydia Kavraki In recognition of the Best Poster "Guiding Protein Conformational Sampling with Experimental Hydrogen Exchange Data to Uncover Unknown Structures"

The next ACM BCB 2019 will be at Niagara Falls. September 7-10, 2019