HiCOMB 2015

14th IEEE International Workshop on High Performance Computational Biology

May 25, 2015
Hyderabad, India
http://www.hicomb.org
HiCOMB 2015 Program

Monday, May 25, 2015

8:20am-8:30am  Opening Remarks

8:30am-9:30am  Plenary Session
Chair: Srinivas Aluru

Ramesh Hariharan (CTO, Strand Life Sciences), keynote talk, Genomic Imperfections: Diagnosing the Causes of Rare Diseases

9:30am-10:00am  Coffee Break

10:00am-12:00pm  Session 1
Chair: Ananth Kalyanaraman

• (Invited) Mathieu Giraud, Perfect Hashing Structures for Parallel Similarity Searches
• Basavaraj Talawar, A Crossbar Interconnection Network in DNA
• (Invited) Denis Trystram, How to handle GPUs for efficient implementation of bio-computing codes
• G.M. Siddesh and K.G. Srinivasa, Phylogenetic Analysis using MapReduce Programming Model

12:00pm-1:30pm  Lunch Break

1:30pm-2:30pm  Plenary Session
Chair: Srinivas Aluru

Geoffrey Fox (Distinguished Professor, Indiana University Bloomington), keynote talk, Visualizing and Clustering Life Science Applications in Parallel
2:30pm-3:30pm  Session 2

**Chair:** Michela Taufer

- Solon P. Pissis and Ahmad Retha, *Generalised Implementation for Fixed-Length Approximate String Matching & Applications*

3:30pm-4:00pm  Coffee Break

4:00pm-5:30pm  Session 3

**Chair:** Narayan Ganesan

- (Invited) Michela Taufer, Boyu Zhang, Trilce Estrada, Pietro Cicotti, Pavan Balaji, *Enabling In-situ Analysis of Ligand Geometries in Drug Design*
- Wajeeta Lohana, Jawwad A. Shamsi, Tahir Q. Syed, and Farrukh Hasan, *Toward Context-Aware DNA Sequence Compression for Efficient Data Exchange*
- (Invited) Ananth Kalyanaraman, *Emerging Architectural Frameworks for Microbiome Applications*