Program for the 5th Symposium on Biological Data Visualization

Friday, July 10

8:30	8:45	BioVis Welcome, Kay Nieselt
8:45	9:45	Keynote Lecture: **Visual data science - Advancing science through visual reasoning** Speaker: *Torsten Möller*, *University of Vienna, Austria*
9:45	10:30	Primer: **Four Levels of Visualization,** Session Chair: Sean O'Donoghue Speaker: *Min Chen, Oxford e-Research Centre, University of Oxford, UK*
10:30	11:00	*Coffee/Tea Break*
11:00	12:40	BioVis Papers: **Omics Data Visualization,** Session Chair: Michel Westenberg
11:00	11:25	PathwayMatrix: Visualizing Binary Relationships between Proteins in Biological Pathways, *T. N. Dang, P. Murray, <u>A. Forbes</u>*
11:25	11:50	Extended LineSets: A Visualization Technique for the Interactive Inspection of Biological Pathways, *<u>F. Paduano</u>, T. N. Dang, P. Murray, A. Forbes*
11:50	12:15	Pan-Tetris: an interactive visualisation for Pan-genomes, *<u>A. Hennig</u>, J. Bernhardt, K. Nieselt*
12:15	12:40	BactoGeNIE: A Large-Scale Comparative Genome Visualization for Big Displays, *<u>J. Aurisano</u>, K. Reda, J. Leigh, G.E. Marai, A. Johnson*
12:45	14:15	*Lunch Break with Lunch Box and Beverages*
14:15	15:00	Primer: **How to Visualize Data,** Session Chair: Sean O'Donoghue Speaker: *Robert Kosara, Tableau Software*
15:00	15:30	Short Poster Talks Session, Session Chairs: Alex Lex and Michael Westenberg
15:30	16:00	*Coffee/Tea Break*
16:00	17:15	BioVis Papers: **Visualizing Imaging Data,** Session Chair: Jos Roerdink
16:00	16:25	Physically-based In Silico Light Sheet Microscopy for Visualizing Fluorescent Brain Models, *<u>M. Abdellah</u>, A. Bilgili, S. Eilemann, H. Markram, F. Schürmann*
16:25	16:50	Visual parameter optimisation for biomedical image processing, *<u>A.J. Pretorius</u>, Y. Zhou, R.A. Ruddle*
16:50	17:15	GRAPHIE: Graph based Histology Image Explorer, *H. Ding, C. Wang, K. Huang, <u>R. Machiraju</u>*
17:15	17:30	Poster Fast Forward, Chairs: Alexander Lex, Michel Westenberg
17:30	19:30	**Poster Presentation** and **Reception** with Drinks and Finger Food

Saturday, July 11

8:30	9:30	Keynote Lecture: **The challenges of biological information visualization** Speaker: ***Larry Hunter***, *University of Colorado, USA*
9:30	10:45	BioVis Papers: **Proteins and Structures**, Session Chair: Jan Aerts
9:30	9:55	MoFlow: Visualizing Conformational Changes as Molecular Flow Improves Understanding*, W. Rumpf, <u>S. Dabdoub</u>, A. Shindhelm, W. Ray*
9:55	10:20	ReactionFlow: Visualizing Relationships between Proteins and Complexes in Biological Pathways, *T.N. Dang, P. Murray, <u>A. Forbes</u>, J. Aurisano*
10:20	10:45	Integrated visual analysis of protein structures, sequences, and feature data, *C. Stolte, K. S. Sabir, J. Heinrich, C. J. Hammang, A. Schafferhans, <u>S. I. O'Donoghue</u>*
10:45	11:15	*Coffee/Tea Break*
11:15	12:15	**Challenges Session**, Session Chair: Kay Nieselt, Sean O'Donoghue
11:15	11:45	**New Advanced Solutions for Genomic Big Data Analysis and Visualization**, Speaker: ***Nacho Medina***, Computational Biology Lab, University of Cambridge, UK
11:45	12:15	**Visualizing 3D Genomes,** Speaker: ***Marc Marti-Renom***, Genome Biology Group, Barcelona, Spain
12:15	14:00	*Lunch Break with Lunch Box and Beverages*
14:00	15:40	BioVis Papers: **Omics Data Visualization**, Session Chair: Nils Gehlenborg
14:00	14:25	miRTarVis: An Interactive Visual Analysis Tool for microRNA-mRNA Expression Profile Data, *<u>D. Jung</u>, B. Kim, R. Freishtat, M. Giri, E. Hoffman, J. Seo*
14:25	14:50	VisRseq: R-based visual framework for analysis of sequencing data, *<u>H. Younesy</u>, T. Möller, M. C. Lorincz, M. M. Karimi, S. J. M. Jones*
14:50	15:15	Epiviz: a view inside the design of an integrated visual analysis software for genomics, *<u>F. Chelaru</u>, H. Corrada Bravo*
15:15	15:40	XCluSim: A visual analytics tool for interactively comparing multiple clustering results of bioinformatics data, *<u>S. L'Yi</u>, B. Ko, D. Shin, Y.-J. Cho, J. Lee, B. Kim, J. Seo*
15:40	16:00	*Coffee/Tea Break*
16:00	17:00	Design Contest Presentations, Session Chairs: Eamonn Maguire and Ryo Sakai
17:00	17:30	Awards Ceremony and Closing Remarks, Liz Marai
17:30	18:30	Bring your own problem