

Impromptu Seminar

COLLOQUIA IN PHYSIOLOGY AND VASCULAR BIOLOGY

Venue: Medical University Vienna, Center for Physiology and Pharmacology,
Institute of Pharmacology, Waehringstrasse 13a, 1090 Vienna, "**Leseraum**"
(Johannes Schmid, Tel.: (01) 40160 31155, johannes.schmid@meduniwien.ac.at,

Friday 19.06.2015 10:00 c.t. **Marc Streit** (host: J. Schmid)

JKU Institute of Computer Graphics
Altenberger Straße 69
4040 Linz
Computer Science Building (Science Park 3), 0357

"Visual Analysis of Heterogeneous Biomolecular Data"

Marc Streit (marc.streit@jku.at)

Abstract: With the introduction of modern data acquisition techniques, such as next-generation sequencing, life science researchers are confronted with an exploding collection of heterogeneous data. The availability of such techniques at comparably low costs shifted the challenge from the acquisition of the data to its analysis. However, not only the sheer amount of the data but also its complexity poses a problem for the sense-making process. In this talk, I will summarize our efforts to come up with novel ways to visually analyze large, heterogeneous datasets. In particular, I will discuss our work on cancer subtype analysis that allows analysts to identify and characterize tumor subtypes in large patient populations as well as techniques for investigating multi-dimensional data in the context of biological networks. The presented work is embedded in the Caleydo project (<http://www.caleydo.org>), which is a long-running collaboration between JKU Linz, Harvard University and Graz University of Technology.

Short CV:

Marc Streit is assistant professor at the Institute of Computer Graphics at Johannes Kepler University Linz, Austria. He finished his PhD at Graz University of Technology in early 2011 and moved to Linz later that year. As part of his tenure-track position, he spent a part of the year 2012 as a visiting researcher at the Center for Biomedical Informatics at Harvard Medical School. In 2014 he received a Fulbright scholarship for research and lecturing at the Visual Computing Group at the Harvard School of Engineering and Applied Sciences. His scientific areas of interest include information visualization, visual analytics, and biological data visualization, where he is particularly interested in the integrated analysis of large heterogeneous data. Most of his research is embedded in the Caleydo project, where he is one of the project leaders and founding-members.

He won Best Paper Awards at InfoVis'13, BioVis'12, InfoVis'11, GI'10 and Honorable Mention Awards at CHI'14, InfoVis'14 and EuroVis'12. He is a co-author of the Nature Methods "Points of View" column. In 2013 he co-edited the Special Issue on Visual Analytics in the IEEE Computer journal. Additionally, he is actively contributing to the scientific community by serving on the organizing and program committee of several scientific events as well as by acting as a reviewer for high-quality journals and conferences. More information can be found on <http://marc-streit.com>.