

Scientific Visualization for Posters and Publications

Call for Participation

Soft Skills of the Graduate School of the Humanities | GSH

Instructor: Dr. Sam Hertig, Hertig Visualizations, Bern
Date: December 5th and 12th, 9pm – 5pm
Room: Unitobler, Lerchenweg 36, Raum F-104 (5. Dez.) und Raum F-114 (12. Dez.)
ECTS: 1.5
Registration: Until September 8, 2017 to: toggweiler@wbkolleg.unibe.ch as on
 KSL: <https://www.ksl.unibe.ch/> (login with UniBe-account, search with title)

Course Description

This workshop will introduce participants on how to efficiently create professional scientific visualizations for their research. We will discuss the reasons why – despite a wealth of computational tools to automatically generate plots and images – scientists have to be skilled at communicating science visually. We will learn a few approaches on how to turn complex concepts into easy-to-understand visuals. Just like grammar is necessary to understand a text, we will learn how to use graphic design principles to guide us in the process of visualization. We will then dive into a hands-on walk-through of a sample scientific illustration, and thus become acquainted with Adobe Illustrator or Inkscape. We will discuss a few workflows that scientists will often encounter: integration and modification of imagery from other sources, manipulation of pixel-based images (using Photoshop or Gimp), compositing, creating slides for presentations and providing context for existing visualizations. Participants are encouraged to work on a figure for a publication relevant to their research after the first day of the workshop. Feedback on individual figures will be provided on the second day of the workshop, followed by a session on scientific posters. Summary of workshop schedule:

- Morning session day 1: Introduction, concepts and principles
- Afternoon session day 1: Hands-on walk through of an illustration
- Morning session day 2: Feedback session
- Afternoon session day 2: Tips and tricks for scientific posters

Learning Objectives

- You will learn how to transform an idea or concept into a schematic illustration
- You will know how to apply visual design principles to guide your graphics creation process
- You will be able to transform out-of-the-box visualizations of your data into a figure ready to be submitted to a journal
- You will learn about the specific pros and cons of posters and the poster creation workflow
- You will know which technical pitfalls to avoid (file formats, color space, image resolution, text, etc.)



Sam Hertig is a freelance specialist in scientific visualization. After a Masters degree in physics at Bern University and a PhD in computational biology at ETHZ, he moved to California to work on molecular modeling and visualization projects at UCSF and Stanford University. In 2016, he founded Hertig Visualizations and started creating graphics, videos and interactive visualizations for clients in industry and academia (www.samhertig.ch).