

## **4th International Symposium on Image-based Systems Biology**

The general experience that “a picture is worth a thousand words” also holds in the field of systems biology: Image-based Systems Biology is a modern approach that aims to extract spatio-temporal information contained in images in a form that it can be used to model morphological, functional and dynamical aspects of biological processes. Image-based Systems Biology seeks to take full advantage of the information in images and establishes an essential connection between experimental and theoretical examination of biological processes at a quantitative level. This approach includes:

- (i) acquisition and automated analysis of image data for high-content and high-throughput screening;
- (ii) quantitative description of biological processes by appropriate characteristic measures;
- (iii) construction of image-derived spatio-temporal models and predictive computer simulations.

Researchers from all fields are invited to communicate their results focused on Image-based Systems Biology in order to exchange novel scientific methods and to share recent achievements from image-driven research in biology. Joint studies of experiment and theory will be highly welcomed. Furthermore, demonstrations of methods for accurate segmentation and classification of regions of interest or object-tracking that can be applied for high-content and high-throughput screening are of interest, as well as computational methods for translating images into mathematical models ranging from differential equations to agent-based methods.

**For ILRS doctoral researchers, participation is free of charge!**

**More information and registration:** [here](#)

### **Date and Time**

September 6, 2018 - September 7, 2018

### **Location**

Location: Lecture hall Koch and Pasteur, HKI

### **Leader**

[Marc Thilo Figge](#)

