



Prof. Nikolaus Grigorieff

The Howard Hughes Medical Institute

Brandeis University

Date: Monday, April 10th, 2017

Time: 11:00 – 12:00

Venue: C209, Center Bldg., Level C

" Image Contrast in Single Particle Cryo-EM "

The potential of the single-particle technique – imaging macromolecular machines of less than a hundred kD molecular mass at near-atomic resolution – is largely impeded by the loss of signal in the imaging process. Several factors contribute to this signal loss, including image blurring due to beam-induced sample motion, radiation damage, contrast transfer of the microscope and detector inefficiencies. In his talk, Dr. Grigorieff will discuss how some of these problems can be addressed with current technology. Examples of recent applications will be given.

Prof. Nikolaus Grigorieff is Lab Head at Howard Hughes Janelia Research Campus in Baltimore/MD. He is developing cryo-EM methods to study the atomic structures of biological macromolecules. His software and procedures have enabled several of the currently highest resolution reconstructions in single particle cryo-EM. His lab represent the cutting edge in this field. This lecture should not be missed by anyone with serious interest in cryo-EM and image processing.



Host: Prof. Matthias Wolf, Molecular Cryo-Electron Microscopy Unit (Wolf Unit)