Methods Development

A major interest of the lab is the development and optimisation of methods for high-resolution cryo-EM. This has led us to investigate:

- Particle selection from micrographs [5]
- Resolution measurement [6] [7]
- High-resolution 3D reconstruction of helical specimens and filaments [8] [9]
- CTF estimation from electron micrographs [10] [11]
- DQE measurement of electron detectors [12]
- Beam-induced motion during cryo-EM data collection [13]
- Movie-collection and processing to enhance resolution in cryo-EM [14] [15]
- Magnification distortion correction in electron micrographs [16]
- Likelihood-based classification of cryo-EM images [17] [18]
- Single-protein detection in crowded molecular environments in cryo-EM images [19]
- Fast and user-friendly single-particle image processing [20]

References