

Molecular-Machine-Shop

Date: Wednesday, May 25th, 2005, 4:05 pm.

Venue: Bioinformatics Collaboratory, CMS, 2nd floor.

Speaker: Michael Marko, DMM, Wadsworth Center

Title: In situ imaging of molecular machines: Challenges to be overcome in cryo-electron tomography".

Recent technical improvements in data acquisition have substantially reduced the dose requirements for electron tomography and have enabled applications to use frozen-hydrated specimens. Frozen-hydrated specimens are as close to the native state as is possible for structural studies using electron microscopy. However, the application of tomography to frozen-hydrated specimens remains challenging, and many problems arising from beam damage have to be overcome to achieve useful resolution levels.

