

Cryo-EM study of Sindbis virus post-fusion E2 homotrimer structure

A preferred orientation case of 141 kD particle

Figure legends

Figure 1. SDS PAGE showing Sindbis virus structural proteins. lane 1, Marker, lane 2, Sindbis virus; Purified Sindbis virus imaged by Titan Krios TEM with K2 detector at pixel size 1.36 pixel/ Å²

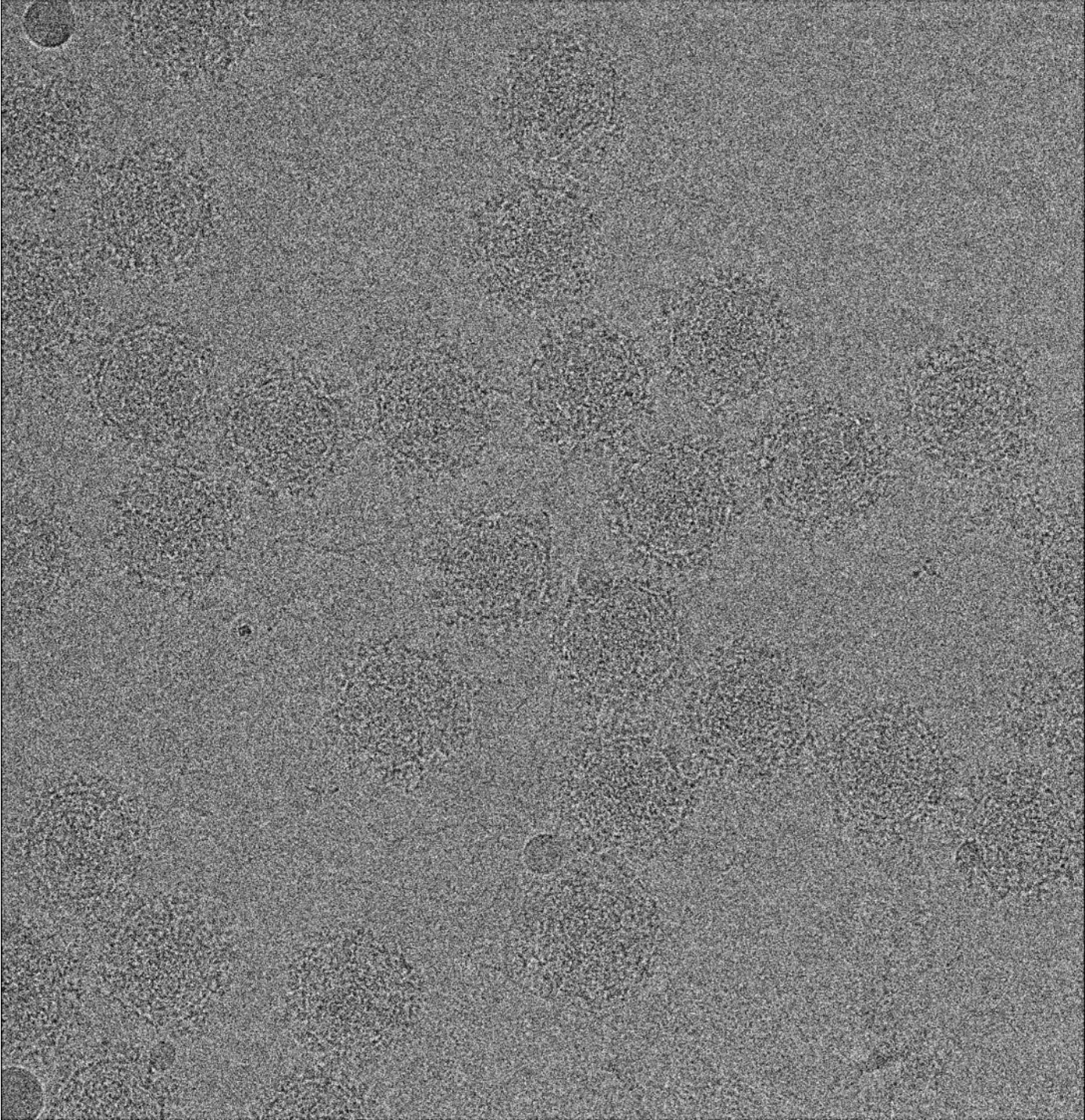
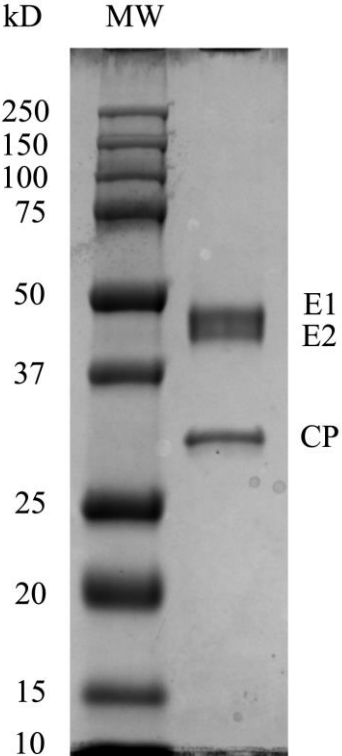
Figure 2. During Sindbis virus membrane fusion with liposome in vitro, post-fusion E2 homotrimer departure from viral membrane. E1 homotrimer fused with liposome and post-fusion membrane wrap genomic capsid core. Fusion products was separated by Superose 6 5/150 size exclusion elution, most massive post-fusion membrane goes to first peak at void volume; potential E2 homotrimers (those dots on F30 TEM CCD image) and some small post-fusion membrane fragments with E1 homotrimers goes to second peak, which was confirmed by F30 TEM CCD imaging;

Figure 3-6. 2D classification and Micrographs of soluble form E2 trimer at 0-degree, 30-degree, 45-degree and 60-degree tilt data, with pixel size 0.83x0.83 Å/pixel;

Figure 7. 3D reconstruction, 0-degree data only (left), tilt data included (right); The particles present strong preferred top and bottom view orientation;

Figure 8. Latest 3D reconstruction map (It have not included data collected on March 2021)

Figure 1



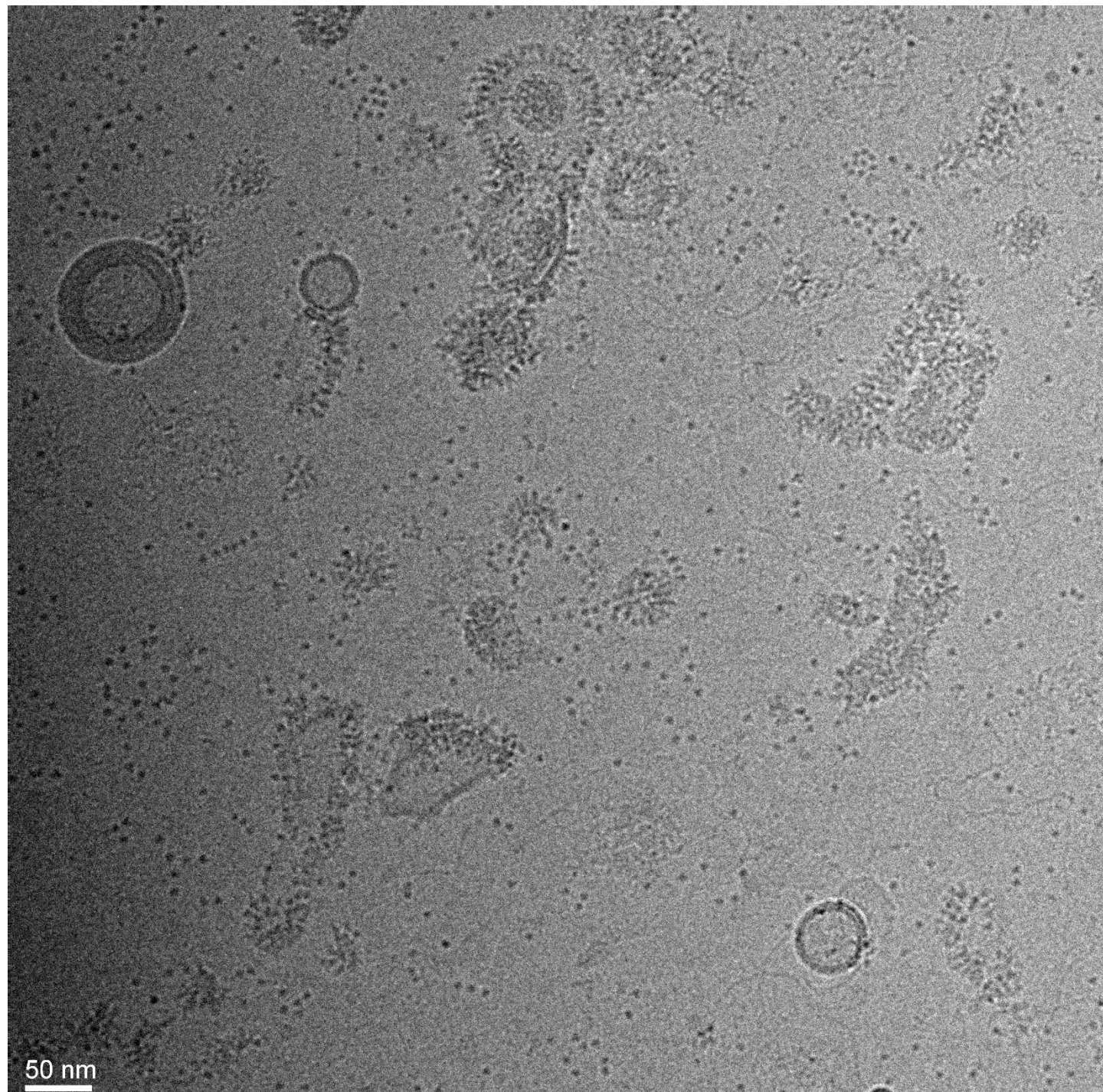
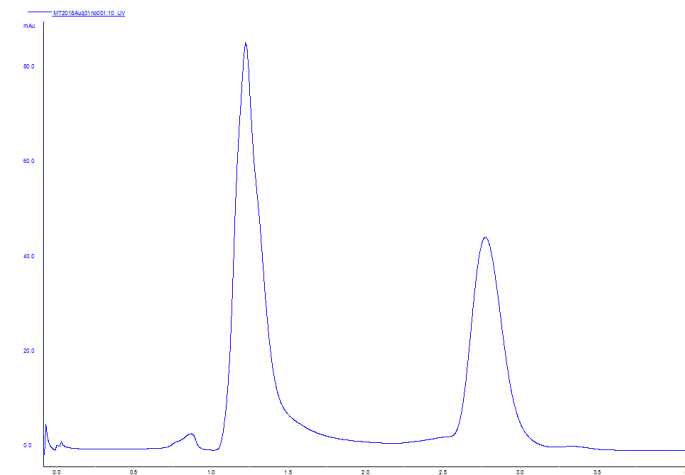


Figure 2



0-degree untilt data

Figure 3

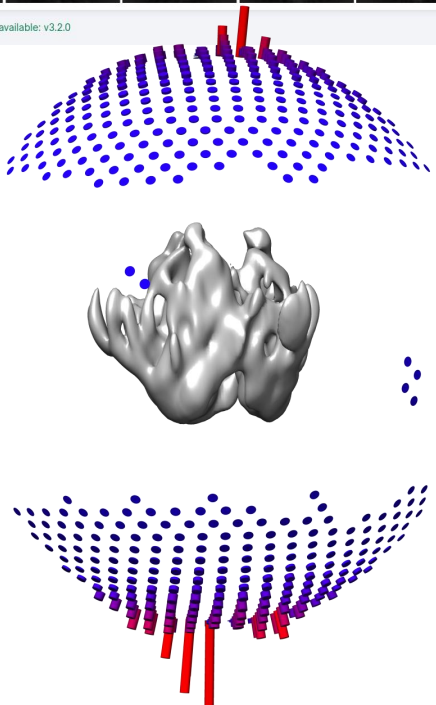
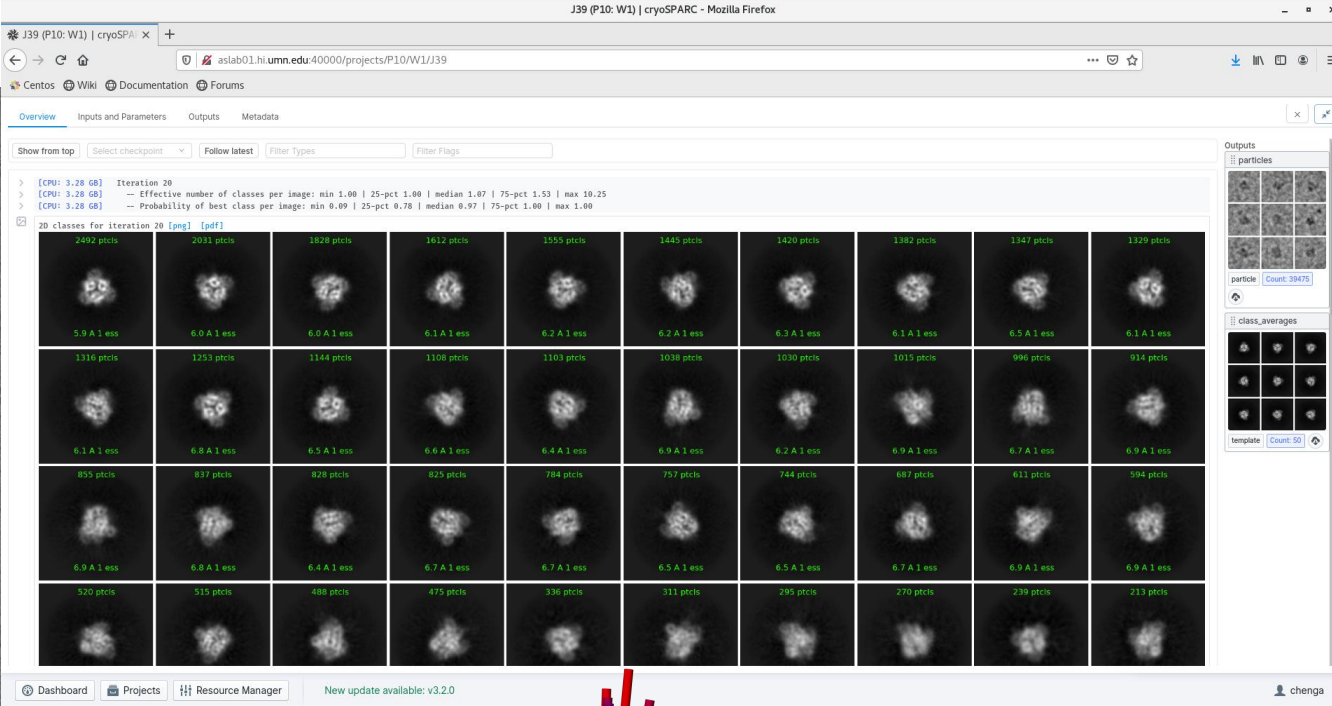
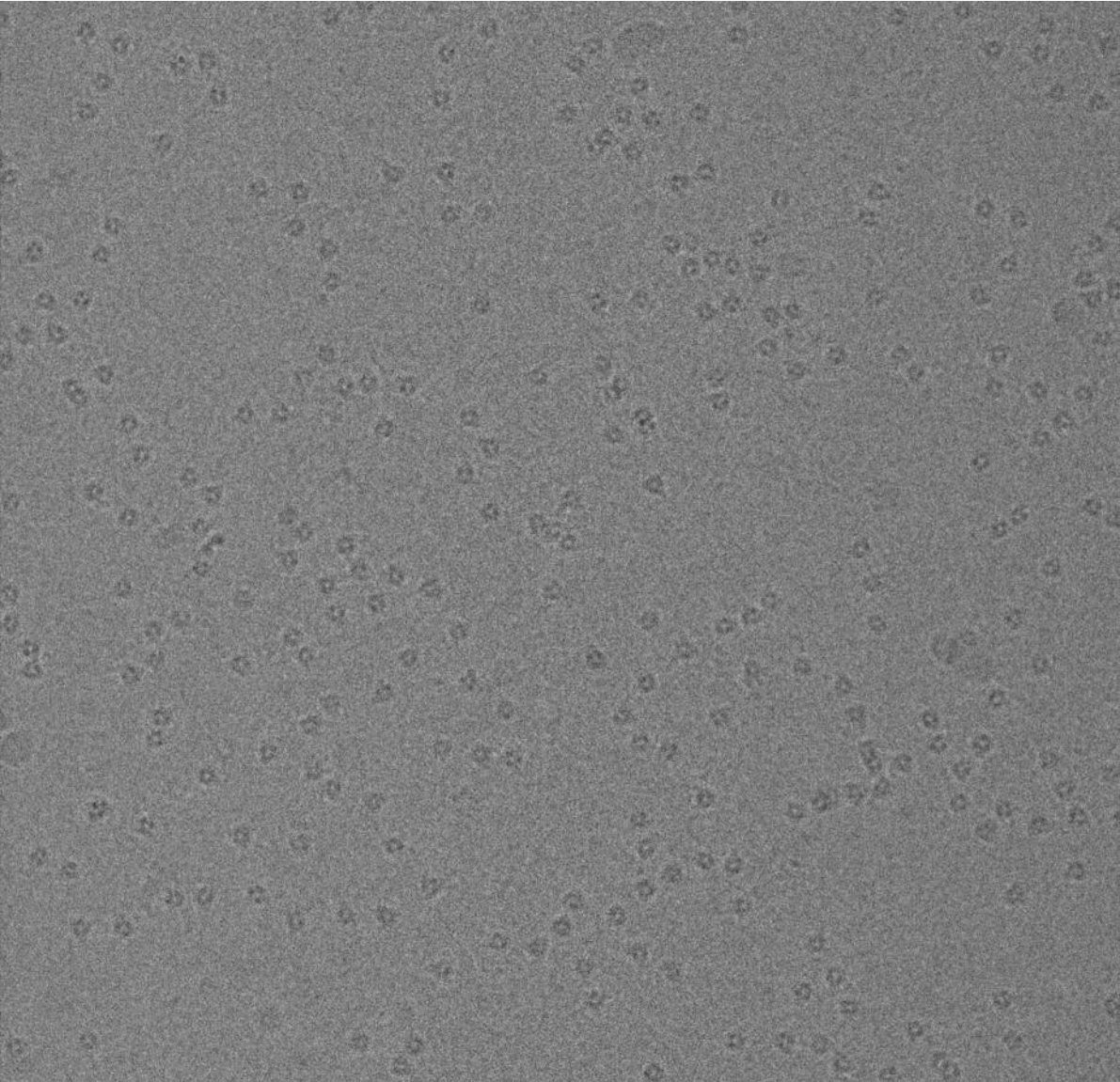
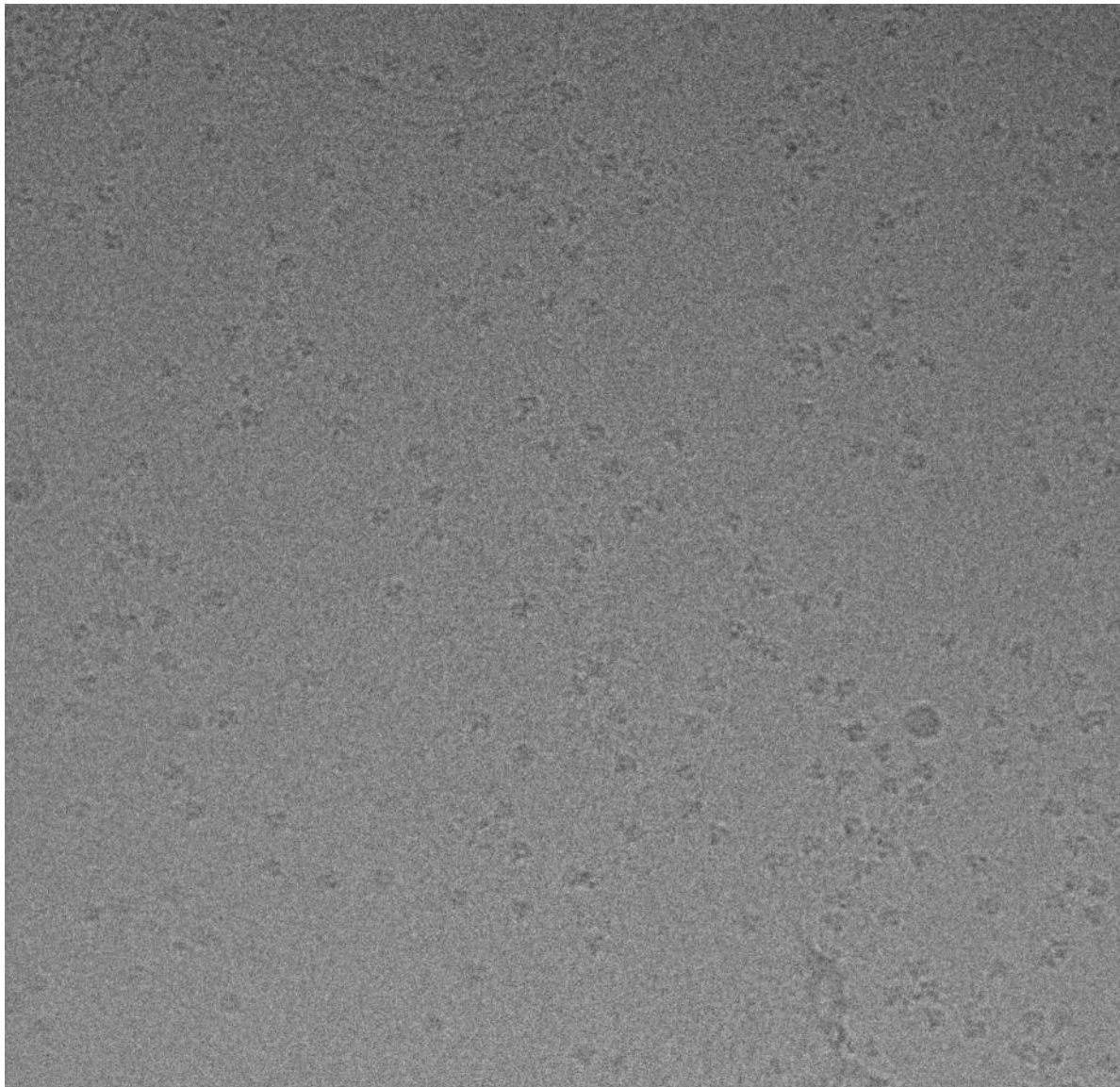


Figure 4



30-degree tilt data

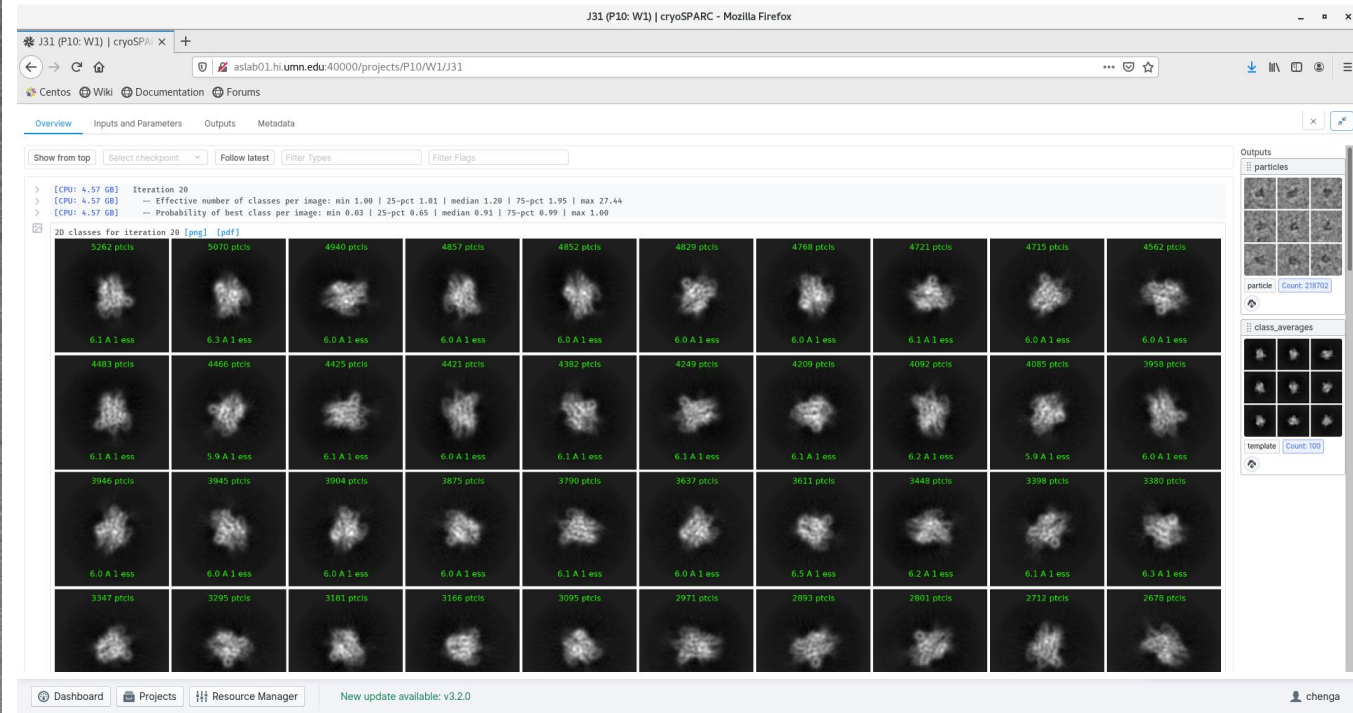


Figure 5 45-degree tilt data

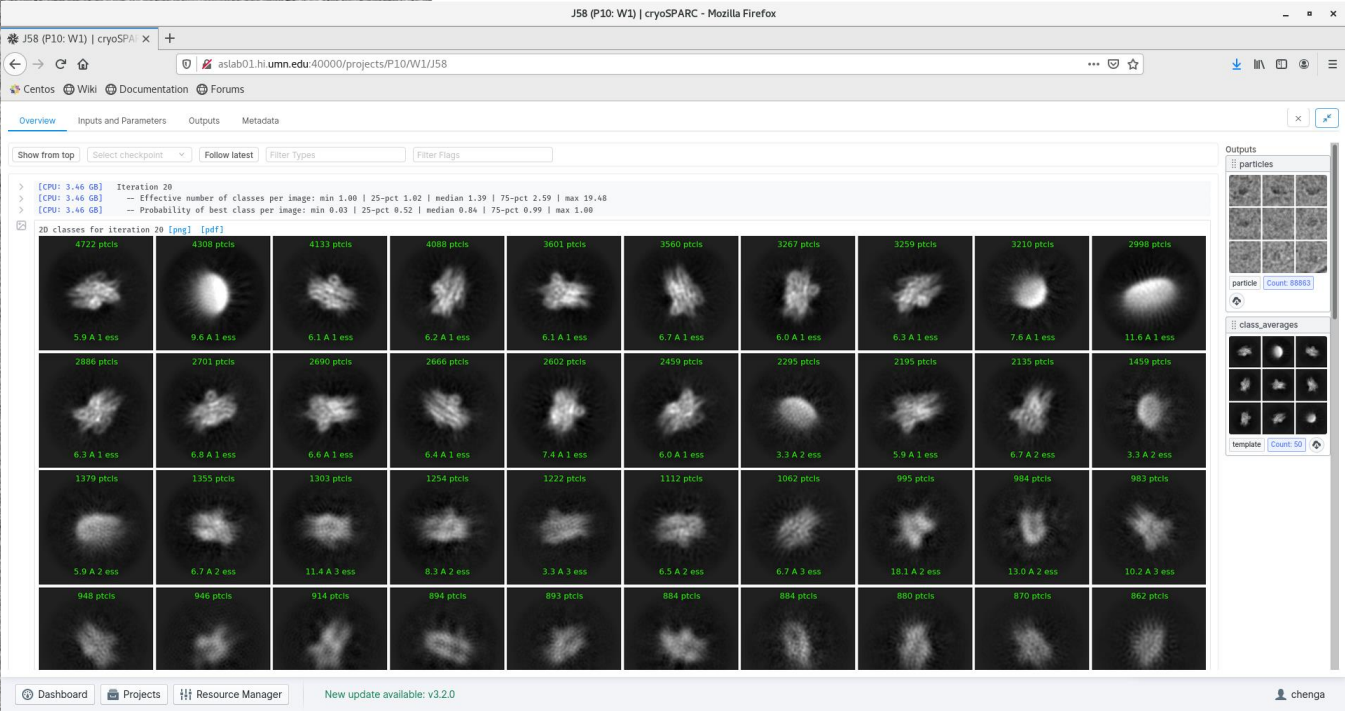
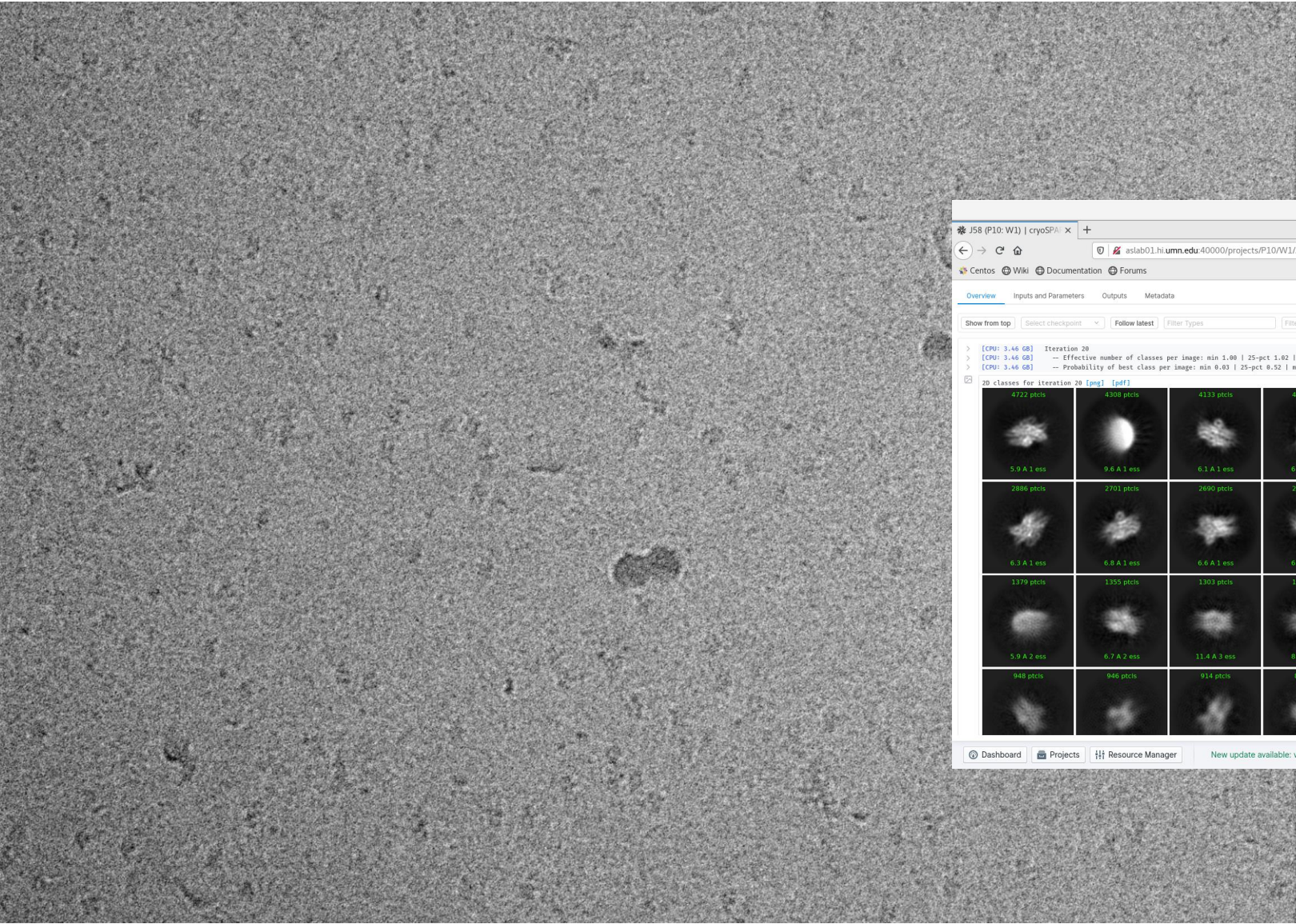


Figure 6

60-degree tilt data

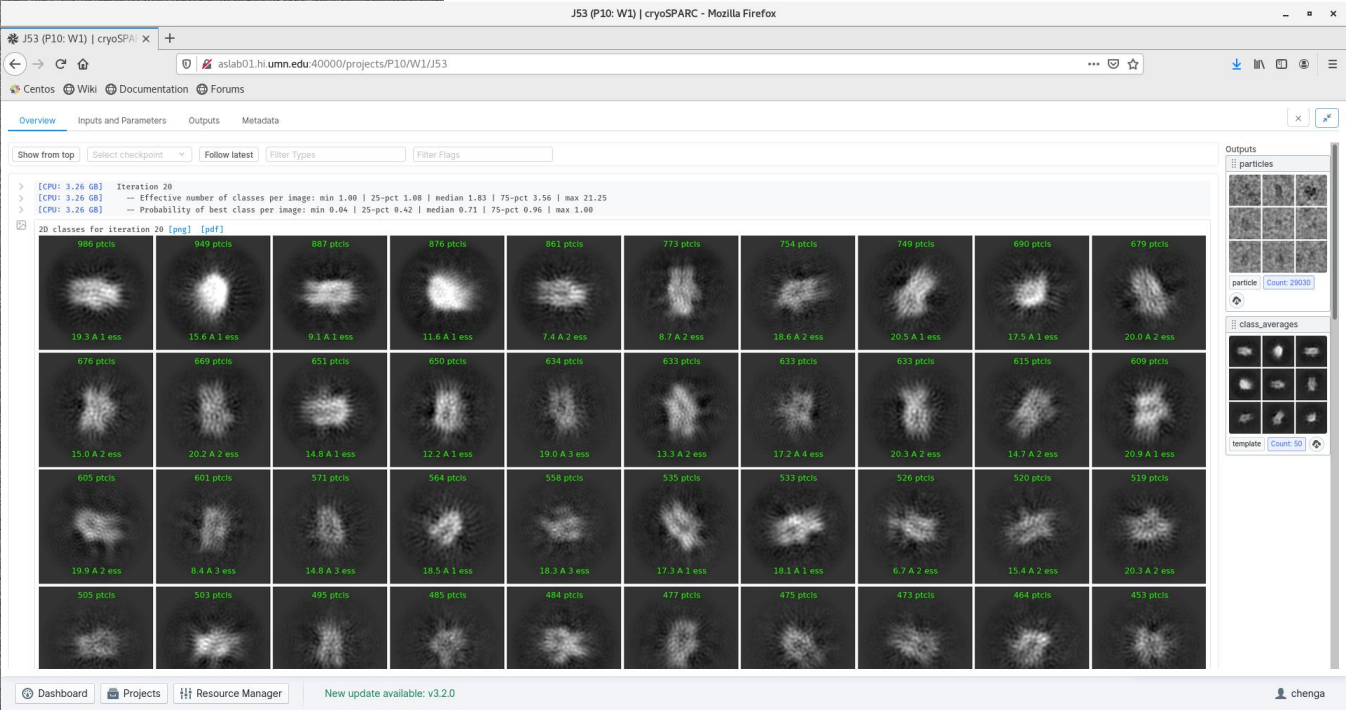
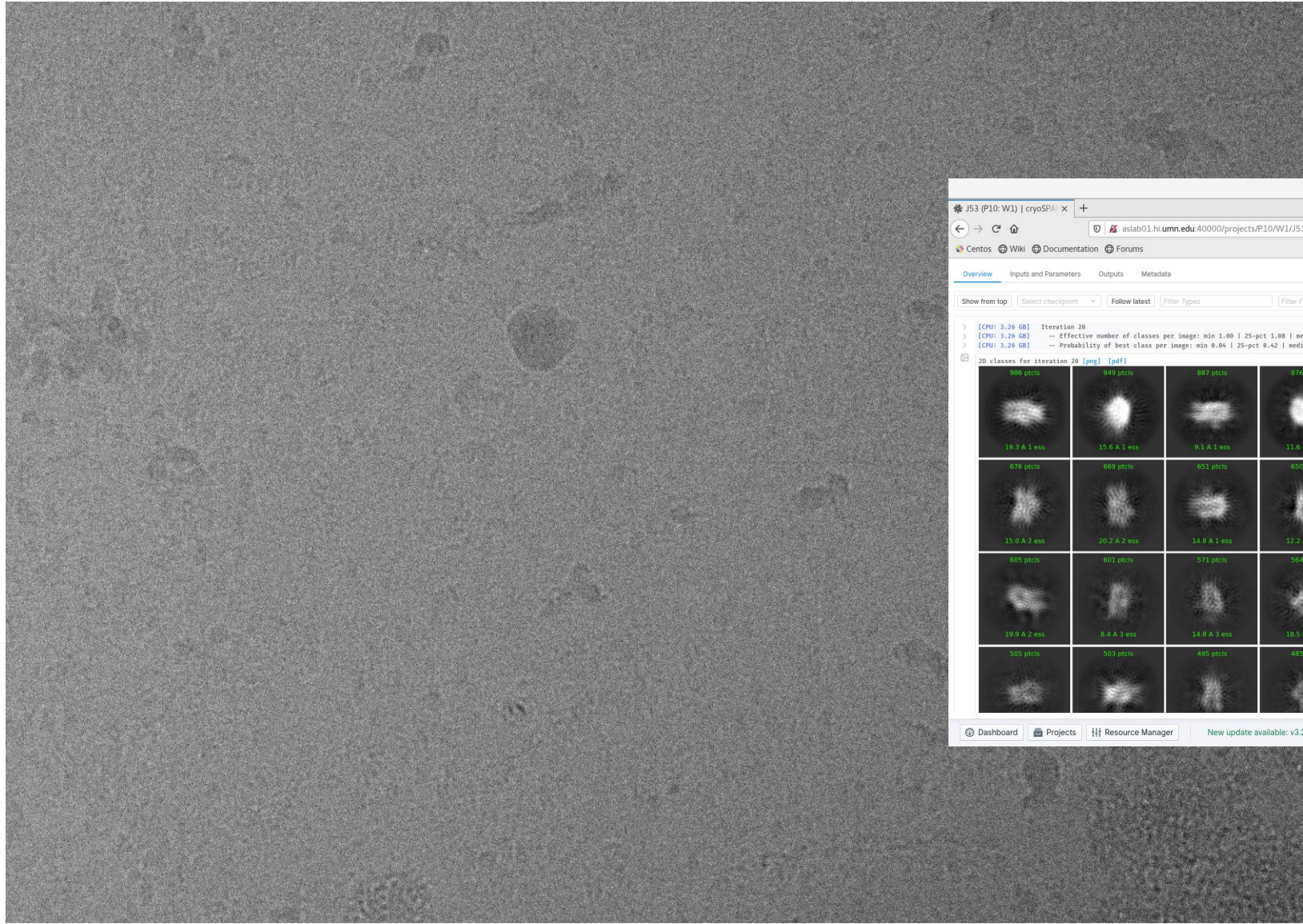


Figure 7

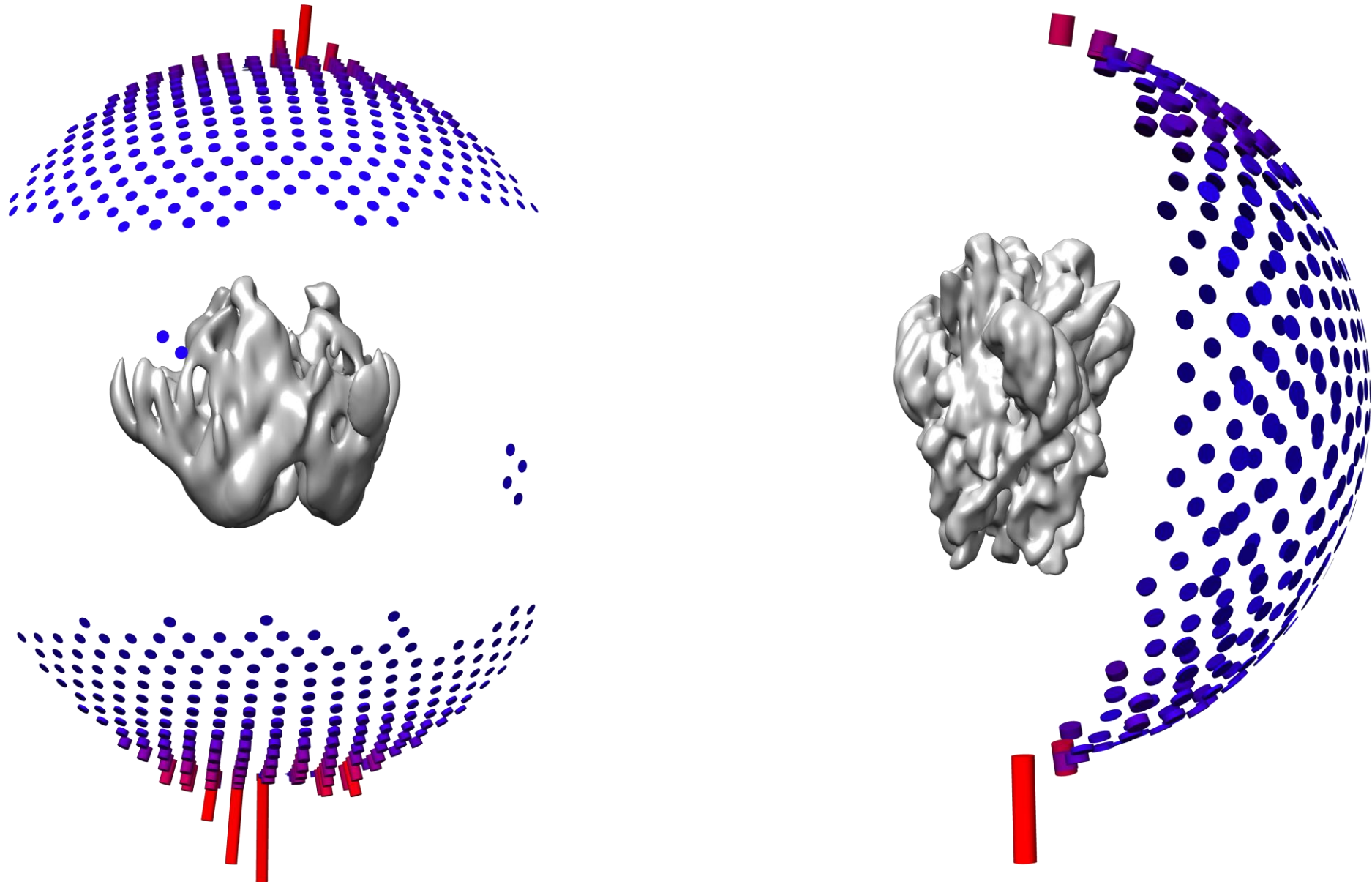


Figure 8

