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Abstract of the talk 13.11.2017, 2 pm

3D X-ray microscopy provides access to the internal microstructure and composition of materials under a variety of conditions and environments. The high resolution X-ray focusing and detection optics enable the acquisition of tomographic datasets with resolution <700 nm. With the unique two-stage magnification high resolution at large working distance is possible, opening up opportunities for interior tomography of large samples as well as in situ and '4D' experiments using environmental cells. Further unique features of the Versa 520 are:

propagation contrast enabling the measurement of soft materials, such as polymers or biological tissue;

contrast modes based on dual energy absorption or diffraction;

3D chemical imaging using hyperspectral X-ray computed tomography.