



FLAGSHIP INITIATIVE
**ENGINEERING
MOLECULAR SYSTEMS**



**UNIVERSITÄT
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SEIT 1386

COLLOQUIUM ENGINEERING MOLECULAR SYSTEMS

VENERA WEINHARDT will talk about **SOFT X-RAY MICROSCOPY OF SINGLE CELLS** in the next “Engineering Molecular Systems” colloquium at **December 6th 2021** at 5 p.m. (CET) hosted by the Flagship Initiative Engineering Molecular Systems of Heidelberg University.



**Venera
Weinhardt**

Center for Organismal
Studies
Heidelberg University

**Dec 6th 2021
5 pm CET**

ABSTRACT:

The structure of a cell is crucial to its identity, function and health. A great deal has been learned about how a cell's structure arises from light and electron microscopy. Yet despite advances of these imaging techniques for volumetric imaging, we still have only a limited ability to observe structural changes of individual whole cells at



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statistically significant sample sizes. Our group and other labs are attempting to overcome these limitations through the development of a single-cell 3D imaging technique – called soft x-ray tomography – which can examine intact cells without labelling or fixation, at high throughput and spatial resolution. I will talk on the recent advances of soft x-ray microscopy for rapid, high-throughput and quantitative imaging of single cells and the effort to combine this modality with cryogenic fluorescence microscopy.

Please register for the Zoom-Webinar using the following link:

https://zoom.us/webinar/register/WN_JkHlaAkQKCghqGaYrrlgw