## Lecture Series & Workshops 2019-2021

From Single Organisms to Systems Ecology and Evolution

## From images to molecules coordinates: principle and discussions on single molecule localization microscopy



## Dr. Julien GODET

from the Laboratory of Bioimaging and Pathologies UMR CNRS 7213

- 1st of July 2020, 12 PM
- Link to the Cisco Webex online meeting

For individual meetings with Dr. Godet, please **register** by mail to <u>secretary@microbiology.lu</u> so that we can initiate the contact.

Optical super-resolution microscopy has become extremely widespread enabling imaging samples beyond the resolution limits of conventional microscopes. Among the different techniques that allow super-resolution imaging, I will in this conference-talk present single-molecule localization microscopy (SMLM). After detailing the principle of SMLM, I will focus on demonstrating the specificities of this technique to show why obtaining a localization dataset is an advantage for advanced analyses and why it is particularly well suited for microbiology samples. I will also present the latest advances in the field, including the emerging spectrally-resolved SMLM.

















