

NanoLSI Open Seminar

# CURRENT TOPICS

## Simulation atomic force microscopy – a journey below the surface

Observations of biomolecular structures and their conformational dynamics by atomic force microscopy (AFM) are restricted to monitoring changes of the molecular surface with limited spatial resolution, often preventing detailed understanding of functional mechanisms. In my talk, I introduce simulation AFM as a computational framework to overcome such drawbacks. I present applications to reconstruct atomistic structures from AFM images ranging from single molecular machines, protein filaments, to even assemblies of 2D protein lattices, and demonstrate how the obtained information advances the interpretation of experimental observations.

I also highlight the BioAFMviewer project that was initiated to integrate the developed methods into a user-friendly software platform with rich functionality.



### Dr. Holger Flechsig

Assistant Professor  
Nano Life Science Institute  
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#### Time and Date

**4:30 PM – 5:30 PM**

**Friday, September 10, 2021**

#### Venue

**Online (Zoom)**

#### Registration

**<https://bit.ly/3mfTAOX>**



#### 【 Organizer 】

Nano Life Science Institute (WPI-NanoLSI)

#### 【 Contact 】

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