

# PREDAVANJE

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Institut Ruđer Bošković  
dvorana III. krila

## Single molecule localization microscopy from pretty images to powerful quantitative tool

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Single Molecule Localization Microscopy (SMLM) and Atomic force microscopy (AFM) have the potential to resolve nanoscale structures on living cells. To obtain structural information from AFM together with functional information from SMLM we constructed a combined AFM/SMLM microscope for correlated imaging of living cells. We believe that bridging the gap between AFM and SMLM and visualizing structural dynamics with nanoscale resolution directly correlated with the single molecule resolved localization of biomolecules has the potential to enhance our understanding of biomolecules at work.

Prof. Dr. Aleksandra Radenović is Associate Professor of Bioengineering at the School of Engineering EPFL (École polytechnique fédérale de Lausanne). Her research focuses on:

- nanobiotechnology: nanopore based force spectroscopy and its application to DNA binding proteins and the mechanism of polymer (DNA/RNA) translocation through nanopores
- nano-electronics and photonics: integration of semiconductor nanowires in water by optical trapping development of novel nano-devices for biological imaging and detectors for biomarkers and
- super resolution microscopy

### ORGANIZATORI

MIP  Mat

Mreže za profesionalno usavršavanje mladih znanstvenika u interdisciplinarnim istraživanjima inovativnih površina i materijala



Hrvatsko mikroskopijsko društvo



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