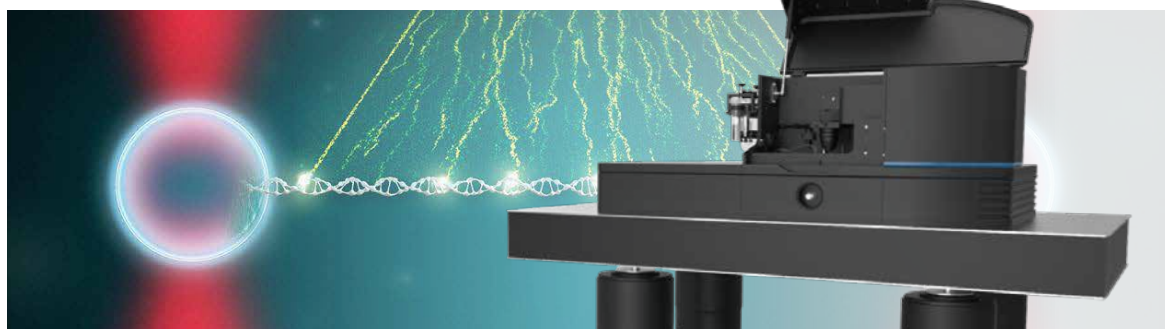




Single molecule analysis of biological mechanisms



Seminar

Date:

9th of November, 2017, 13:00

Place:

University Campus Bohunice, Kamenice 753/5, 625 00 Brno
Seminary Room, building A3

Topic:

C-Trap - optical tweezers combined with confocal microscopy/STED nanoscopy
- technology and applications



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Abstract:

Single-molecule technologies offer an exciting opportunity to study protein function and activity in real-time and at the single-molecule level.

Here, we present our efforts for further enabling discoveries in the field of biology and biophysics using both the combination of **optical tweezers with single-molecule fluorescence microscopy (C Trap)**.

We show the latest applications of these technologies that can enhance our understanding not only in the field of DNA/RNA-protein interactions but also in the fields of molecular motors, protein folding/unfolding, cell membranes and genome structure and organization. These experiments show that the technological advances in hybrid single-molecule methods can be turned into an easy-to-use and stable instrument that has the ability to open up new venues in many research areas.

