

Learning from Single Molecules 2009

June 29th - July 1st, 2009

KSI, 53604 Bad Honnef



Program

Monday, June 29th, 2009

12:00 – 14:00 [Arrival / Registration / Lunch Buffett](#)

14:00 – 14:10 Welcome & Introduction:

Ulrich Kubitscheck

Chair: Jörg Enderlein

14:10 – 15:00 **Gerhard Schütz**

Addressing plasma membrane nanostructures by single molecule techniques

15:00 – 15:50 **Kevin Braeckmans**

Introduction to Single Particle Tracking

15:50 – 16:20 [Coffee Break](#)

16:20 – 17:10 **Rainer Heintzmann**

Microscopy Image Processing: From Data to Understanding

17:10 – 18:00 **Markus Sauer**

Photoswitches: Key molecules for subdiffraction-resolution fluorescence imaging and molecular quantification

18:00 – 18:10 [Coffee Break](#)

18:10 – 19:00 **Dario Anselmetti**

What do we learn from mechanical single molecule force spectroscopy experiments with AFM, SNOM and optical tweezers?

20:00 [Workshop dinner: Restaurant „Weinhaus Steinbach“](#)

[Spießgasse 2, 53604 Bad Honnef, Telefon: 0 22 24 / 24 66](#)

Tuesday, June 30th, 2009

Chair: Gerhard Schütz

8:30 – 9:20 **Eugene Petrov**

FCS as a tool to study dynamics in biopolymers and membranes

9:20 – 10:10 **Jörg Enderlein**

Dual-focus fluorescence spectroscopy and imaging: a versatile tool for single-molecule biophysics

10:10 – 10:30 [Coffee Break](#)

10:30 – 11:20 **Don Lamb**

How Strict are the Chaperons? A single molecule burst analysis approach to investigating the role of chaperons in protein folding

11:20 – 12:10 **Claus Seidel**

Molecular Ångström Optics

12:15 – 13:15 [Lunch](#)

13:15 – 16:00 [Hike in the Siebengebirge](#)

Chair: Thomas Schmidt

16:00 – 16:50 **Johannes Hohlbein**

Single-molecule studies of DNA polymerase dynamics in solution and on surfaces

16:50 – 17:40 **Andreas Zumbusch**

Chromophores for Single Molecule Fluorescence Detection

17:40 – 18:00 [Coffee Break](#)

18:00 – 18:50 **Dirk-Peter Herten**

Probes for Single-Molecule Microscopy

18:50 – 20:00 [Dinner](#)

20:00 – 20:30 **Ulrich Kubitscheck**

Tracking of single, native RNA molecules

20:30

PI discussion: Creation of a European Network on Single Molecule Techniques

Wednesday, July 1st, 2009

Chair: Andreas Zumbusch

- 8:30 – 9:20 **Hanns Häberlein**
Membrane receptor dynamics studied by FCS and single molecule tracking
- 9:20 – 10:10 **Gregory Harms**
TGF-beta signaling: from molecule to organism
- 10:10 – 10:20 Coffee Break
- 10:20 – 11:10 **Thomas Schmidt**
G-Protein Signaling followed Molecule-by-Molecule
- 11:10 – 12:00 **Maxime Dahan**
Visualizing cellular events, one quantum dot a time
- 12:00 Lunch and end of the workshop