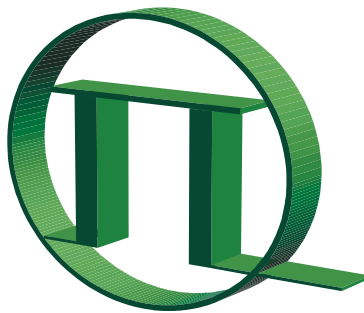


# **11<sup>th</sup> International Workshop on “Single Molecule Spectroscopy and Ultrasensitive Analysis in Life Sciences”**

Organized by  
PicoQuant GmbH



**PICOQUANT** GmbH  
Unternehmen für optoelektronische  
Forschung und Entwicklung

## **Program**

September 21 - 23, 2005  
at WISTA Campus  
Berlin-Adlershof (Germany)

## Program (subject to alterations)

### Wednesday, 21<sup>st</sup> September 2005

- 11.30 - 12.30 REGISTRATION (Conference room: Max Born Saal)
- Chair: Rainer Erdmann
- 12.30 - 12.45 Rainer Erdmann, Berlin  
Opening Remarks
- 12.45 - 13.20 Maxime Dahan, Paris (**Invited Paper**)  
Dynamics of Single GABAA Receptors in Nerve Growth Cones:  
From Molecular Interactions to Axonal Guidance
- 13.20 - 13.45 Gregory Harms, Würzburg  
Activation of Cytokines and Receptors: Single-Molecule Studies
- 13.45 - 14.10 Julian D. Langer, Heidelberg (*Students Award*)  
Studying Coatomer Receptor Interactions using Single-Molecule  
FRET
- 14.10 - 14.35 Hubert Piwonski, Warsaw (*Students Award*)  
Tautomerisation in a Single Molecule
- 14.35 - 15.00 Andreas Biebricher, Bielefeld (*Students Award*)  
Emission from Multiexciton States and Radiative Rate Constant  
Fluctuations of Single Semiconductor Nanocrystals
- 15.00 - 15.25 F. D. Stefani, Mainz  
Surface Plasmon Mediated Single Molecule Fluorescence through a  
Thin Metallic Film
- 15.25 - 15.55 COFFEE BREAK
- Chair: Maxime Dahan
- 15.55 - 16.30 Shimon Weiss, Los Angeles (**Invited Paper**)  
In-vitro and In-vivo Single Molecule Imaging and Spectroscopy
- 16.30 - 16.55 Alexander Krieg, Oxford  
Towards Single Molecule DNA Sequencing: Addressing the problem  
of Non-specific Background
- 16.55 - 17.20 Gregor Jung, Saarbruecken  
Effective Brightness of Autofluorescent Proteins in Microscopy
- 17.20 - 17.45 Johannes Hohlbein, Halle (*Students Award*)  
Single Molecule Detection in Ordered, Porous Alumina

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## Program (subject to alterations)

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- 17.45 - 18.10 Boris Zimmermann, Freiburg (*Students Award*)  
Movements of the  $\epsilon$ -subunit During Catalysis in Single Membrane-  
bound H<sup>+</sup>-ATPsynthase Revealed by Fluorescence Resonance  
Energy Transfer
- 18.10 - 18.35 Pierre Desbiolles, Paris  
Observation of EcoRV Sliding Along DNA at a Single Molecule Level
- 19.00 RECEPTION (Wista Corner)

### Thursday, 22<sup>nd</sup> September 2005

Chair: Joachim D. Müller

- 08.45 - 09.20 Claus A. M. Seidel, Düsseldorf (**Invited Paper**)  
Single-Molecule FRET Measurements with High Accuracy
- 09.20 - 09.45 Joachim Ross, Bielefeld (*Students Award*)  
Single-Molecule-Multistep FRET for the Analysis of Competing  
Transfer Pathways
- 09.45 - 10.10 Steffen Rüttinger, Berlin (*Students Award*)  
Improving Single Molecule Förster Resonant Energy Transfer  
Measurements by Pulsed Interleaved Excitation and Fluorescence  
Correlation Spectroscopy
- 10.10 - 10.40 COFFEE BREAK

Chair: Shimon Weiss

- 10.40 - 11.15 Benjamin Schuler, Zürich (**Invited Paper**)  
Peptide Dynamics and Protein Folding Trajectories  
from Single Molecule FRET
- 11.15 - 11.40 Felix Koberling, Berlin  
Time-resolved Confocal Fluorescence Microscopy: Novel Technical  
Features and Applications for FRET, FLIM & FCS
- 11.40 - 12.05 Samantha Fore, Livermore / Davis (*Students Award*)  
Application of Single Molecule FRET Photon-Correlation  
Spectroscopy to Studying DNA-Protein Interactions
- 12.05 - 12.30 Ralf Steinmeyer, Würzburg  
Combined FRET, Anisotropy, and Single-Molecule Measurements  
Synchronized with Patch Clamping

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## Program (subject to alterations)

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12.30 - 12.55 Alexander Gansen, Heidelberg (*Students Award*)  
Dynamics of Mononucleosomes Studied with Single Molecule FRET  
in Solution

12.55 - 13.05 GROUP PICTURE

13.05 - 14.05 LUNCH

Chair: Paul Selvin

14.05 - 14.30 Kai Hassler, Lausanne (*Students Award*)  
Single Molecule Detection with Total Internal Reflection Fluorescence  
Correlation Spectroscopy (TIR-FCS) in epi-illumination Configuration

14.30 - 14.55 Barbara K. Müller, München (*Students Award*)  
Determination of FRET-Efficiencies Using PIE-FCCS

14.55 - 15.20 Ingo Gregor, Jülich  
Using Fluorescence Lifetime in Fluorescence Correlation  
Spectroscopy

15.20 - 18.30 POSTER SESSION and PRODUCT PRESENTATION

20.00 DINNER

## Friday, 23<sup>rd</sup> September 2005

Chair: Benjamin Schuler

08.45 - 09.20 Joachim D. Mueller, Minneapolis (**Invited Paper**)  
Fluorescence Fluctuation Spectroscopy in Cells

09.20 - 09.45 Jaques Derouard, Saint Martin d'Hères  
Measurement of Surface Concentration of Fluorophores Using  
Fluorescence Fluctuation Spectroscopy

09.45 - 10.10 Thomas Dertinger, Jülich (*Students Award*)  
Applications for a Multi-focus Confocal Microscope for Single  
Molecule Studies

10.10 - 10.35 Hannes Neuweiler, Bielefeld  
Direct Observation of Mini-protein Folding Using Fluorescence  
Correlation Spectroscopy

10.35 - 11.05 COFFEE BREAK

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## Program (subject to alterations)

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Chair: Claus A. M. Seidel

11.05 - 11.40 Gerhard J. Schütz, Linz (**Invited Paper**)  
Single Molecule Microscopy on Living Cells

11.40 - 12.05 Don C. Lamb, Munich  
Dual-Color Single-Virus Tracing: Following the Entry Pathway of HIV

12.05 - 12.30 Heiko Zettl, Bayreuth (*Students Award*)  
Single Molecule Experiments on Homo Polymers and Block  
Copolymers

12.30 - 12.55 Benoit Muls, Louvain-la-Neuve (*Students Award*)  
Study of Conjugated Polymers by Wide-field Microscopy

12.55 - 13.20 Peter Zoon, Amsterdam (*Students Award*)  
Single Molecules in Thermodynamically Unfavorable Conformations:  
Trapping Non-equilibrium States by Rapid Spin Coating

13.20 - 14.20 LUNCH

Chair: Gerhard J. Schütz

14.20 - 14.55 Paul Selvin, Urbana (**Invited Paper**)  
Fluorescence Imaging with One Nanometer Accuracy (FIONA):  
Application to Molecular Motors

14.55 - 15.20 Danying Lin, Beijing  
Imaging and Tracking Single Fluorescent Microspheres with a  
Nanometer Resolution Using Total Internal Reflection Technique and  
Gaussian Fit Algorithm

15.20 - 15.45 Antoine Delon, Saint Martin d'Hères  
Spatial Fluorescence Cross Correlation Spectroscopy

15.45 - 16.10 Christian Eggeling, Göttingen  
Fluorescence Fluctuation Spectroscopy in Reduced Focal Volumes  
Generated by Stimulated Emission Depletion

16.10 - 16.35 Wolfgang Erker, Mainz  
Detection of Single Oxygen Molecules with Fluorescence Labelled  
Hemocyanins

16.35 - 16.45 Rainer Erdmann, Berlin  
Presentation of "Students Award"

16.45 - 17.00 Concluding Remarks