

# 4<sup>th</sup> Hands-On Workshop on Making Single Molecule Fluorescence (Lifetime) Measurements Simple



January 22-23, 2009

Joint workshop between  
PicoQuant GmbH and  
the Center for Biophotonics at UC Davis



## Thursday, January 22, 2009

9:00 am	<b>Registration</b>
9:40 am	<b>Rainer Erdmann</b> ( <i>PicoQuant GmbH, Germany</i> ) Welcome & Brief Introduction of PicoQuant
10:00 am	<b>Jörg Enderlein</b> ( <i>University of Tübingen, Germany</i> ) Dual-focus Confocal Fluorescence Spectroscopy
10:40 am	<b>Jim Schuck</b> ( <i>Lawrence Berkeley National Laboratory, USA</i> ) Non-blinking and Photostable Upconverted Luminescence from Single Lanthanide-doped Nanocrystals
11:10 am	<b>Carl Hayden</b> ( <i>Sandia National Laboratories, USA</i> ) Time-resolved, Multi-spectral, Single Molecule Spectroscopy
11:40 am	<b>Fernando Stefani</b> ( <i>ICFO, Barcelona, Spain</i> ) Laser Heating of Gold Nanoparticles: "Icebreakers" for Phospholipid Membranes
12:20 pm	<b>Lunch break</b> (for all participants)
1:20 pm	<b>Sebastian Wachsmann-Hogiu</b> ( <i>UC Davis, Sacramento, USA</i> ) All-optical Time-gated Raman / Fluorescence Micro-spectroscopy
1:50 pm	<b>Felix Koberling</b> ( <i>PicoQuant GmbH, Germany</i> ) Recent Technical Developments in Time-Resolved Microscopy down to the Single Molecule Level
2:20 pm	<b>Samantha Fore</b> ( <i>PicoQuant Photonics North America Inc., USA</i> ) Full Fluorescence Correlation Analysis - From Picoseconds to Seconds - For the Study of Biomolecular Interactions and Dynamics
3:00 pm	<b>Coffee break</b> (for participants of hands-on sessions only)
3:30 pm	<b>Hands-on sessions</b>
5:00 pm	Change groups
5:15 pm	<b>Hands-on sessions</b>
7:00 pm	<b>Reception</b> (for participants of hands-on sessions only)

## Friday, January 23, 2009

8:30 am	<b>Coffee</b>
8:45 am	<b>Intro to CBST</b>
9:00 am	<b>Andreas Schoenle</b> ( <i>MPI Göttingen, Germany</i> ) Photoswitching enables the observation of biomolecular dynamics on the nanoscale
9:45 am	<b>Zygmunt "Karol" Gryczynski</b> ( <i>University of North Texas, Fort Worth, USA</i> ) FRET in Single Molecule Detection Format - Applications to Single Antibody Immunoassay
10:15 am	<b>Coffee break</b> (for all participants)
10:45 am	<b>Tingjuan Gao</b> ( <i>UC Davis, Sacramento, USA</i> ) tba
11:15 am	<b>Mircea Cotlet</b> ( <i>Brookhaven National Laboratory, USA</i> ) Single Molecule Energy and Electron Transfer in Model Multichromophoric Systems
11:55 am	<b>Rainer Erdmann</b> ( <i>PicoQuant GmbH, Germany</i> ) Advanced FRET and FCS Measurements with Laser Scanning Microscopes Based on Time-resolved Techniques
12:25 pm	<b>Lunch break</b> (for all participants)
1:30 pm	<b>Thomas Huser</b> ( <i>UC Davis, Sacramento, USA</i> ) Time-resolved Coherent Anti-Stokes Raman Scattering (T-CARS) Microscopy
2:00 pm	<b>Gopal Iyer</b> ( <i>UCLA, USA</i> ) Quantum Dot Labeling of Single Single-chain Fragment Antibody Tagged Proteins
2:30 pm	<b>Move buildings</b>
2:45 pm	<b>Hands-on sessions</b>
4:15 pm	<b>End</b>