

Program (subject to change)

The course will start on Monday, November 1 around 8:00 am and will finish on Thursday, November 4 around 12:30 pm.

Monday, November 1

- Basic definitions and principles of fluorescence
- Fluorescence labels and probes, basics of data analysis
- Instrumentation for time-resolved fluorescence measurements and live demo
- Practical TCSPC data analysis
- Introduction to hands-on experiments

Tuesday, November 2

- Biophysical applications and time-resolved fluorescence
- Instrumentation for TCSPC and fluorescence lifetime imaging (FLIM)
- Fluorescence measurements and standards, fluorescence sensing
- Hands-on experiments

Wednesday, November 3

- Advanced topic-plasmon-controlled fluorescence
- Computational aspects of TCSPC data analysis
- Analytical applications of fluorescence
- Hands-on experiments

Thursday, November 4

- Introduction to fluorescence microscopy techniques
- Hands-on experiments

Location

The course will be held in the "Max-Born-Saal" in Berlin-Adlershof, located in the south-east of Berlin.

Accommodation

We have negotiated special rates for two hotels, that are located on the campus and which are in walking distance to the course location. Prices, booking codes and further details are available at our website.

Information and Correspondence

Course coordinator: Jana Grünig
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www: www.picoquant.com/_trfcourse.htm

About PicoQuant

PicoQuant GmbH is a research and development company in the field of optoelectronics. The company was founded in 1996 and is based in the Technology Park Berlin-Adlershof, Germany. Since April 2008 Sales and Support in North America is handled by PicoQuant Photonics North America Inc. (PQPI). PicoQuant is one of the worldwide leading suppliers of pulsed diode lasers and LEDs, photon counting instrumentation, fluorescence lifetime spectrometers and time-resolved confocal microscopes. The company records a steady growth and at present employs around 50 people.

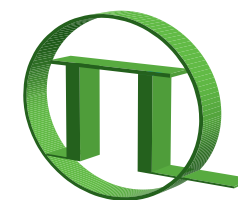
About the CFS

The Center for Fluorescence Spectroscopy (CFS) is supported by the NIH National Center for Research Resources to develop advanced applications of fluorescence. For more details please see:
<http://cfs.umbi.umd.edu/cfs/index.htm>

8th European Short Course on

Principles and Applications of Time-resolved Fluorescence Spectroscopy

Organised by



PICOQUANT

with support from



Center for Fluorescence Spectroscopy

November 1 - 4, 2010
Berlin-Adlershof, Germany

www.picoquant.com/_trfcourse.htm

Aim and Purpose

The course is intended for individuals wishing an in-depth introduction to the principles of fluorescence spectroscopy and its applications to the Life Sciences. Attendees are typically professionals who are using or intend to use fluorescence in their research. Most attendees have some knowledge of fluorescence, typically in a specialized area. However, also individuals from totally different areas as well as from industry get the opportunity to enter this exciting field in a very effective way and will especially benefit from the hands-on experimental section.

Course Organisation and Topics

The course consists of lectures in the mornings and hands-on experiments and lab demonstrations in the afternoon.

The lectures on Monday and Tuesday deal with basic steady-state and time-resolved fluorescence spectroscopy, instrumentation and data analysis. They cover time- and frequency-domain measurements, anisotropy, solvent effects, quenching and Förster Resonance Energy Transfer (FRET).

The lectures on Wednesday and Thursday cover advanced time-resolved fluorescence topics and data analysis. Applications of fluorescence in biophysics, sensing, clinical chemistry or material science are presented along with an introduction into fluorescence microscopy.

The hands-on experiments (steady-state and time-resolved experiments as well as data analysis) are offered on various instruments provided by market leading companies.

Course Instructors

The course is taught by Rainer Erdmann and staff of PicoQuant (Berlin) as well as Joseph R. Lakowicz from the CFS (Baltimore) and Zygmunt "Karol" Gryczynski from the University of North Texas (Fort Worth). These instructors all have extensive experience in time-resolved fluorescence and its applications to Life Sciences.

- **Joseph R. Lakowicz**
is Professor of Biochemistry and Director of the Center for Fluorescence Spectroscopy in Baltimore.
- **Karol Gryczynski**
is Professor at the Department of Molecular Biology and Immunology at the University of North Texas.
- **Rainer Erdmann**
is Managing Director of the R & D company PicoQuant and specialist in ultra sensitive fluorescence analysis.
- **Felix Koberling**
is Senior Scientist at PicoQuant and specialized in time-resolved fluorescence microscopy applications and instrumentation.
- **Matthias Patting**
is Senior Scientist at PicoQuant and specialist in software design for Time-Correlated Single Photon Counting instrumentation.
- **Michael Wahl**
is Senior Scientist at PicoQuant and specializes in the instrumentation for Time-Correlated Single Photon Counting.

Registration

To participate you need to register prior to the event, by September 15, 2010 at the latest. Since the number of participants is limited we recommend an early registration. We also offer early bird prices for registrations until June 30, 2010.

Please use our online-form at our website to register for the course.

Fees

Binding registration and payment	before June 30	until September 15
Industry and private sector	1300 €	1500 €
Academy and university	700 €	850 €

Cancellation: before September 15: 75% refund
 after September 15: 25% refund

Besides full course attendance, the fee includes all coffee breaks, 1 reception, 1 dinner, daily lunches, course materials and the use of instruments. **Attendees will be responsible for their own travel, lodging and meals.**

PicoQuant will grant a fee waiver to a few participants from the university or academic sector. Accommodation, travel and personal expenses still need to be paid by the participants themselves. To apply for a fee waiver please send us a letter of application until June 30 along with a formal letter of recommendation from your department or institute.



Course Instructor Joseph R. Lakowicz



Hands-on session



Group picture



Hands-on session