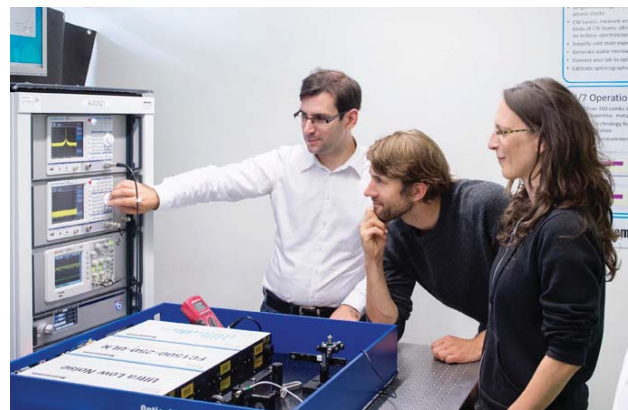




Menlo Systems, a leading developer and global supplier of instrumentation for high-precision metrology, was founded in 2001 as a spin-off of the Max Planck Institute of Quantum Optics, with the foremost aim to commercialize optical comb technologies and make it available to newly emerging application fields. Menlo Systems maintains a strong bond to co-founder Nobel Laureate Theodor W. Hänsch, who pioneered precision laser techniques.



Our instructors have extensive knowledge and experience in optical frequency combs and optical frequency measurements. The course will include morning lectures and afternoon hands-on training sessions with our state-of-the-art in-house optical frequency comb systems. Ample personal attention will be ensured by the limited class size.

External speakers and a visit to the labs of the renowned Max Planck Institute of Quantum Optics will give a chance to interact with leading scientists in the field.

List of external speakers and schedule will be available by June 2018

## **PRACTICAL TRAINING SESSIONS**

Participants can deepen their knowledge and improve lab skills as they work with our state of the art FC1500-ULN optical frequency synthesizer and various stabilized CW lasers.

## TOPICS INCLUDE

- fundamentals of frequency comb technology
- frequency comb applications
- certification
- building blocks of fiber-based systems
- data acquisition and analysis
- systematic and statistic errors
- stability and accuracy
- RF references
- carrier collapse
- software tools for comb control, automation
- remote monitoring
- cw laser frequency measurements and phase-locking
- 1-Hz linewidth optical reference system
- hands-on experience in the Menlo test lab



## COMMENTS FROM ATTENDANTS

„Totally helpful – almost mandatory“

„The talks were great and the time spent in the labs was very good practice”

“Great atmosphere”

“Time for questions and discussions with experts”

“Excellent organization, nice people”

“I’ll definitely be sending students in the future!”

## REGISTRATION

Seminar fee: 2,500 EUR

Class size is limited to 10 persons.

Attendance is on a first-come, first-served basis and is subject to availability.

## ACCOMMODATION

Rooms are reserved for the period of July 16-20, 2018 in the hotel Campus at home IZB Residence (located right next to Menlo, 25 minutes to downtown Munich with public transportation).

Hotel website: [www.campusathome.de](http://www.campusathome.de)

Rooms and rates will be held until June 22, 2018 for a daily rate of 79 EUR, including service and tax without breakfast.

Breakfast buffet: 12,50 EUR per day.

Later accommodation requests will be filled on a space available basis.

### **Contact for more information on seminar topics and registration:**

Dr. Ida Z. Kozma  
Am Klopferspitz 19a  
D-82152 Martinsried, Germany  
Phone: +49 89 189 166 0  
Fax: +49 89 189 166 111  
[i.kozma@menlosystems.com](mailto:i.kozma@menlosystems.com)

### **Questions regarding hotel reservation and travel assistance should be sent to:**

Brigitte Kauer  
Am Klopferspitz 19a  
D-82152 Martinsried, Germany  
Phone: +49 89 189 166 0  
Fax: +49 89 189 166 111  
[b.kauer@menlosystems.com](mailto:b.kauer@menlosystems.com)

