Opportunities for microfluidic devices at Free-Electron Lasers



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The recent developments on microfluidics for X-ray free-electron laser (XFEL) experiments open up the possibility to address new scientific questions. Novel micro-fabricated devices enable reactions initiation by **rapid mixing**, taking XFEL experiments beyond static structure solution into the realm of timeresolved structural science for a wide range of samples. The workshop will address further challenges on liquid sample delivery. **Sample consumption** is the bottleneck for experiments with precious samples and strategies for its reduction will be discussed. Moreover, the high repetition rate of European XFEL demands **rapid sample refreshment**, a challenge for all sample delivery methods.

We are pleased to announce a workshop on microfluidics for X-ray free-electron laser experiments, which aims to bring together developers of liquid sample delivery, using diverse microfabrication techniques and sample delivery approaches. The workshop intends to be a platform for discussing the latest developments and foster exchange of information and expertise.

The one-day workshop will feature ten presentations from invited international scientists.

Registration

- https://indico.desy.de//event/microfluidics
- Registration opens 1 March 1 June 2017
- The registration is free for all participants
- Places are limited to approximately 90 and will be filled on a first-come, first-served basis

Organizers

Rita Graceffa European XFEL, Schenefeld, Germany Joachim Schulz European XFEL, Schenefeld, Germany







Invited speakers:

Osman Bilsel University of Massachusetts Medical School, Worcester, USA George Calvey Cornell University, Ithaca, USA Daniel DePonte SLAC National Accelerator Lab, Menlo Park, USA Sebastian Göde European XFEL, Schenefeld, Germany Michael Heymann Max Planck Institute of Biochemistry, Martinsried, Germany Daniel Langley La Trobe Institute of Molecular Science, Melbourne, Australia Dominik Oberthür Center for Free-Electron Laser Science, Hamburg, Germany Alexandra Ros Arizona State University, Tempe, USA Sébastien Teychené Laboratory of Chemical Engineering, Toulouse, France Martin Trebbin University of Hamburg, Hamburg, Germany