Ulf Kleineberg

Ludwig Maximilians University Munich
Faculty of Physics
Am Coulombwall 1
D-85748 Garching, Germany
http://www.x-ray.physik.uni-muenchen.de

Phone: + 49 89 2891 4003
Fax: + 49 89 2891 4141
E-mail: ulf.kleineberg@physik.uni-muenchen.de

Date and place of birth: *29 October 1962; Bielefeld, Germany*
Citizenship: *Germany*
Status: *married, two children*

EDUCATION

2001	Habilitation in experimental physics – University of Bielefeld, Faculty of Physics, Germany
1994-2001	Postdoctoral fellow – University of Bielefeld
1994	Ph.D. in Physics – University of Bielefeld, Faculty of Physics, Germany
1989-1994	Ph.D. study in Physics – University of Bielefeld, Germany
1989	Diploma degree in Physics (Dipl. Phys.)
1983-1989	Study in Experimental Physics, University of Bielefeld, Germany

ACADEMIC CAREER

Since 4/2006	Full professor (W-2) at the University of Munich (LMU), Faculty of Physics
2005-2006	Permanent Staff Scientist (A14), University of Bielefeld, Faculty of Physics
2003-2005	Permanent Staff Scientist (A13), University of Bielefeld, Faculty of Physics
2002-2003	Visiting Professor (C3), University of Mainz, Institute of Physics
2001-2002	Assistant Professor (C2), University of Bielefeld, Faculty of Physics
1999-2001	Research Assistant (C1), University of Bielefeld, Faculty of Physics
1998-1999	Staff Scientist Center for X-ray Optics, Lawrence Berkeley National Laboratory, USA
1994-1998	Postdoctoral Fellow, University of Bielefeld, Faculty of Physics
1989-1994	Research Scientist, University of Bielefeld, Faculty of Physics

RESEARCH FOCUS

Main fields	Soft X-ray Optics/Physics, Surface and Thin Film Physics, Attosecond Physics; Synchrotron Radiation and FEL Physics,
Other fields	Electron Microscopy, Electron Beam Lithography, Nanolithography, Self Assembly
Current interests	Development of multilayer soft X-ray optics for attosecond XUV pulses; Measurement and control of electronic dynamics in nanostructures; Ultrafast Nano-Plasmonics; Time-resolved X-ray Photoelectron Spectroscopy and Photoelectron Emission Microscopy; Metrology for Extreme Ultraviolet Lithography EUVL.

Publications : > 100 publications in peer-reviewed journals (5 Science, 5 Nature), **h-index 22**

Ongoing Research Projects (Funding by Excellence Cluster MAP, DFG, LMU) :

1. **Excellence cluster "Munich Centre for Advanced Photonics" (2007-2011),**
   project A1.4 "Ultrawide band instrumentation",
   project C1.1 "Pushing the frontiers of attosecond metrology and spectroscopy"
   project C1.7 "Collective electron dynamics in metallic nanoparticles"
2. **DFG TR18 transregio project A8** "Ultrashort X-ray sources" **(2008-2011)**
3. **DFG SPP 1391 priority project "Ultrafast Nanooptics" (2009-2012) :**
   "Probing the spatio-temporal dynamics of localized surface plasmon fields with nanometer spatial and attosecond temporal resolution"
4. **LMUexcellent (2008-2010)** "Setup of a highly brillant coherent EUV light source for metrology and nanolithography in the EUV spectral range"

Selected publications (2008-2011) :

"State-of-the-art attosecond metrology"
M. Schultze, A. Wirth. I. Grguras, M. Uiberacker, T. Uphues, A.J. Verhoef, J. Gagnon, M. Hofstetter, U. Kleineberg, E. Goulielmakis, F. Krausz. Journal of Electron Spectroscopy and Related Phenomena (online http://dx.doi.org/10.1016/j.elspec.2011.01.003) (2011)

"Attosecond dispersion control by extreme ultraviolet multilayer mirrors"
M. Hofstetter, M. Schultze, M. Fieß, B. Dennhardt, A. Guggenmos, J. Gagnon, V. Yakovlev, E. Goulielmakis, R. Kienberger, E.M. Gullikson, F. Krausz, and U. Kleineberg.
Optics Express 19(3) (2011)

"Delay in photoemission"
M. Schultze, M. Fieß, N. Karpowitz, J. Gagnon, M. Korbman, M. Hofstetter, S. Neppl, A.L. Cavalieri, Y. Komninos, Th. Mercouris, C.A. Nicolaides, R. Pazourek, S. Nagele, J. Feist, J. Burgdörfer, A.M. Azeer, R. Ernstorfer, R. Kienberger, U. Kleineberg, E. Goulielmakis, F. Krausz, and V.S. Yakovlev. Science 328 (5986), 1658-1662 (2010)

"Time of flight photoemission electron microscopy for ultrahigh spatiotemporal probing of nanoplasmonic optical fields"
J. Lin, N. Weber, A. Wirth, S.H. Chew, M. Escher, M. Merkel, M.F. Kling, M.I. Stockman, F. Krausz, U. Kleineberg. Journal of Physics-Condensed Matter 21 (31), 314005 (2009)

"Single-cycle nonlinear optics"
E. Goulielmakis, M. Schultze, M. Hofstetter, V.S. Yakovlev, J. Gagnon, M. Uiberacker, A.L. Aquila, E.M. Gullikson, D.T. Attwood, R. Kienberger, F. Krausz, U.Kleineberg.
Science **320**, 1614 (2008)