

Short CV and Research Profile of Prof. Dr. Oswald Willi

Higher Education:

1977: Lehramt, Physik, University of Innsbruck
1978: Master of Science, University of Oxford
1980: D.Phil., University of Oxford

Appointments:

1981: Research Associate, University of Oxford
1982: Director's funded postdoctoral fellow, Los Alamos National Laboratory
1984: Lecturer, Imperial College, London
1990: Reader, Imperial College, London
1993: Professor, Imperial College, London

Current Appointment:

since 2001: Professor (C4), Universität Düsseldorf
2002-2009: Fellow, Queens' University Belfast
2004-2015: Speaker of SFB/TR18
2005-2014: Speaker of GRK 1203

Memberships:

Fellow of the Institute of Physics
Member of the EPSRC College
Member of the American Physical Society
Science Advisory Committee member MPIK
Science Advisory Committee member Forschungszentrum Dresden
Science Advisory Committee member Physics, University Jena LULI
Committee member, France
Science Advisory Committee member for PETAL, France
Committee member "Strategischer Forschungsfond", HHU
Member of the PHELIX and Plasmaphysics Program Advisory Committee, GSI In
Marquis Who's Who

Prizes and Awards:

Scholarships gained for academic achievements (1975 and 1976)
Scholarship from the Austrian Ministry of Science and Research (1977-1980)
1st Prize for patents in NRW, 2005
University Medal 2012
John Dawson Award for Excellence in Plasma Physics Research 2017

Patents

- O. Willi, T. Toncian, M. Borghesi and J. Fuchs, *PILZ*, Deutsche Patentanmeldung 10 2005 012 059.8 (2005), also filed in the EU, US and Japan under CNRS L07216 US Patent
- B. Hidding, T. Königstein, O. Willi, G. Pretzler, *Verfahren zum Testen der Empfindlichkeit elektronischer Bauteile gegenüber Teilchen- und Photonenstrahlen mit Laser-Plasma-Beschleunigern*, Deutsche Patentanmeldung 10 2010010716.6 (2010)

List of presentations at scientific conferences

Plenary, review and invited presentations:

- *Relativistic laser-plasma dynamics*, Colloquium, University of Pisa, June 2014
- *Generation and applications of ion and soft X-ray sources with the Arcturus Laser System*, Colloquium, GSI Darmstadt, July 2013
- *Investigations of ion acceleration and electron dynamics in high intensity one and two laser pulse experiments*, Frontiers of Nonlinear Physics, Russia, August 2013
- *Acceleration and applications of intense proton pulses driven by ultra-short laser pulses*, 22nd International Laser Physics Workshop, Prague, July 2013
- *HHU contributions to IZEST*, IZEST workshop, Paris, Nov.2011
- *Laser driven particle acceleration*, EuroNNAC workshop, Cern May 2011
- *Progress in laser plasma physics*, Annual DFG Conference, Kiel, March 2011
- *Energy absorption, proton and higher harmonic production on solid targets irradiated at relativistic intensities by varying the laser pulse contrast*, Frontiers of Nonlinear Physics, Russia, July 2010
- *Particle and x-ray generation by irradiation of gaseous and solid targets with a 100 TW laser pulse*, 36th EPS Conference on Plasma Physics, Sofia, June 2009
- *Laser plasma interaction studies with a 100 TW laser pulse*, Russian-French-German Laser Symposium, Nizhny Novgorod, Russia, May 2009
- *Laser driven micro-lens for focusing and energy selection of MeV protons*, Workshop on Ultra High-Intensity Laser Nuclear and Particle Physics, Trento, Italy, June 2008
- *Acceleration of particles by ultra-intense laser pulses*, DPG Tagung, Darmstadt, March 2008

- *Properties of laser-triggered micro-lens for energy selection and focusing of MeV protons*, 4th. Atomic, Molecular, Optical and Plasma Physics of the Institute of Physics, London, U.K., September 2007
- 8th Symposium on Advanced Photon Research Program, JAEA, Japan, June 2007
- *Laser triggered micro-lens for focusing and energy selection of MeV protons*, Workshop, Dresden, Germany, December 2006
- *Properties of laser-triggered micro-lens for energy selection and focusing of MeV protons*, 29th European Conference on Laser Plasma Interaction, Madrid, Spain, June 2006
- *Shortest light pulses, extreme energy densities: Modern laser plasma physics*, IRCEP Opening and Symposium, Queens University, Belfast, U.K., June 2005
- *Proton imaging with lasers: Status and Progress*, International Workshop on Lasers and Nuclei, Karlsruhe, Germany, September 2004
- *Kürzeste Lichtpulse, höchste Felder, extreme Energiedichten: Moderne Laser-Plasma-Physik - Abendvortrag*, DPG Tagung on Plasma- und Kurzzeitphysik, Aachen, Germany, March 2003
- *Shortest light pulses, enormous fields, extreme energy densities: Modern laser plasma physics*, 1th. Atomic, Molecular, Optical and Plasma Physics of the Institute of Physics, Milton Keynes, U.K., September 2003
- *Progress and issues in the fast ignition approach to ICF*, 11th International Congress on Plasma Physics, Sydney, Australia, July 2002
- *Proton Imaging: Detection of Transient Electro-magnetic Fields in Laser-Plasma Interactions*, Symposium on High-Intensity Lasers, Shanghai, China, (2002)
- *Investigation of high density matter with proton imaging*, Workshop-Future Physics on Large Scale Laser Facilities in Aquitaine, Bordeaux (2002)
- *Inertial Fusion Energy: Recent Progress*, Institute of Physics Meeting/Royal Society of Edinburgh, Edinburgh (2000)
- *Recent progress in Inertial Confinement Fusion*, 27th Annual Conference on Plasma Physics, Brighton (2000)
- *Inertial fusion physics and ultrashort laser-pulse interaction*, 20th Workshop on Physics of High Density in Matter, Hirschegg (2000)
- *Increase of the drive pressure in soft x-ray irradiated foam foil packages*, 1st International Conference on Inertial Fusion Science and Application, Bordeaux (1999)
- *The fast ignitor approach*, Royal Society Discussion Meeting, The Approach to an Ignited Plasma, London (1998)

Conference organization

- SPIE Photonics Europe Symposium, 12-16 April 2010 in Brussels, Belgium
- Russian-French-German Laser Symposium, 17-23 May 2009 in Nizhny Novgorod, Russia
- Ultra-Intense Laser Interaction Science Conference, 24-29 May 2009 in Frascati, Italy

Editorial Board of scientific journals

- Plasma Physics and Controlled Fusion
- High Energy Density Physics