

## Invited talks

1. Physical Electronics Conference, Baton Rouge, USA, June 22, 2000.  
*'Photon emission spectroscopy of individual oxide-supported silver clusters in a scanning tunneling microscope' (Nottingham Competition).*
2. SPIE Conference, San Diego, USA, July 31, 2001.  
*'Photon emission spectroscopy of individual oxide-supported gold and silver clusters in the STM' (Invited Paper)*
3. 10<sup>th</sup> International Colloquium on Scanning Probe Microscopy, Honolulu, USA, November 1, 2002.  
*'From single atoms to one-dimensional solids: Artificial gold chains on NiAl(110)' (Invited talk)*
4. 12<sup>th</sup> International Conference on Scanning Tunneling Microscopy / Spectroscopy, Eindhoven, July 23, 2003.  
*'From single atoms to nano-particles: Spectroscopy on the atomic level' (Plenary Talk)*
5. Spring meeting of the DPG, Regensburg, March 8, 2004.  
*'Tailoring electronic properties of atomic chains assembled by STM' (Plenary talk)*
6. COST Meeting, London, May 2, 2004.  
*'Line Defects in Al<sub>2</sub>O<sub>3</sub> Thin Films: Structure and Electronic Properties'*
7. Dutch SPM Day, Amsterdam, November 5, 2004.  
*'Model Catalysts at the Atomic Scale: Metal Atoms and Clusters on Oxide Films' (Invited talk)*
8. Humboldt-University Berlin, Department of Physics, Prof. Winter. November 17, 2005.  
*'Elektronische und Optische Eigenschaften von metallischen Nanoteilchen auf dünnen Oxidfilmen' (Seminar)*
9. 4<sup>th</sup> International Workshop on Oxide Surfaces, Aussois and Torino, France and Italy, January 6, 2005.  
*'Model Catalysts at the Atomic Scale: Atoms and Clusters on ultrathin Al<sub>2</sub>O<sub>3</sub> Films' (Invited talk)*
10. MPI für Festkörperforschung Stuttgart, Nanoscale Science Department, Prof. K. Kern February 2, 2005.  
*'Model catalysts at the atomic scale: Oxide films and supported metal clusters studied by STM' (Seminar)*

11. Clustertreffen 2005, Bad Herrenalb, September 14, 2005.  
*'Keimbildung auf dünnen Oxidfilmen: Goldatome auf Al<sub>2</sub>O<sub>3</sub> und FeO' (Invited talk)*
12. RWTH-Aachen, Institutsseminar Festkörperphysik, Prof. M. Morgenstern, January 18, 2006.  
*„Adsorption and Nucleation on thin Oxide Films' (Colloquium)*
13. University Bremen, Department of Chemistry, Prof. M. Bäumer, June 9, 2006.  
*'Eigenschaften dünner FeO und Al<sub>2</sub>O<sub>3</sub> Filme' (Seminar)*
14. University Würzburg, Department of Physics, Prof. Umbach, August 30, 2006.  
*'Fabrication and properties of low-dimensional systems with an STM' (Focus lecture)*
15. IFF-Spring-School, FZ-Jülich, March 15, 2007.  
*„Light emission spectroscopy with the STM' (Keynote-lecture)*
16. CeNS-München, May 25, 2007.  
*„From workfunction tuning to Kondo physics: The properties of thin oxide films' (Colloquium)*
17. University of Halle, Symposium: Surfaces of 3d transition metals, June 13, 2007.  
*'From self-organization to Kondo physics: The properties of thin FeO films' (Invited talk)*
18. Meeting of the Fachbeirat, Fritz-Haber-Institut, November 12, 2007.  
*'Thin oxide films: A support with tunable properties'*
19. Humboldt-University Berlin, Department of Physics, Prof. Winter, January 15, 2008.  
*'Adsorptionsverhalten dünner Oxidefilme' (Seminar)*
20. University of Modena, Department of Physics, Prof. Valeri, January 18, 2008.  
*'Adsorption of metal atoms on thin oxide films' (Colloquium)*
21. University of Milan, Department of Materials Science, Prof. Pacchioni, March 18, 2008.  
*'Au chains self-assembled on alumina thin films' (Colloquium)*
22. Humboldt-University Berlin, May 27, 2008.  
*'Elektronische Eigenschaften linearer Atomketten auf metallischen und oxidischen Substraten' (Habilitation-Colloquium)*
23. University of Modena, Department of Physics, February 13, 2009.  
*'Photon-Emission Spectroscopy at the Nanometer Scale' (Colloquium)*

24. Humboldt-University Berlin, June 5, 2009.  
*Materials with negative index of refraction' (Habilitation-Colloquium)*
25. COST meeting, University P.-M. Curie, Paris, October 22-24, 2009.  
*'Probing oxide polarity at the atomic scale: MgO on Au(111) (Invited talk)*
26. University Bonn, Department of Chemical Physics, Prof. Sokolowski, 15. January 2010.  
*'Light emission spectroscopy at the nanometer scale' (Colloquium)*
27. USB-MPG workshop, University of British Columbia, Vancouver, May 10-17,2010.  
*'Transition metal oxides: An STM study' (Invited talk)*
28. USB-MPG Summer School, MPI für Festkörperforschung Stuttgart, Stuttgart, October 5, 2010.  
*'Electron quantization in low-dimensional metal systems' (Lecture)*
29. UNICAT / SFB 546 Meeting, Erkner, February 23, 2011.  
*'Defects in rare earth and transition metal oxides' (Invited talk)*
30. University of Osnabrück, Department of Physics, Nano-Science Group, Prof. Reichling, March 4, 2011.  
*'Oxygen vacancies in single crystalline ceria films' (Seminar)*
31. University of Köln, Department of Physics, Prof. Michely, May 18, 2011.  
*'Defects in rare earth and transition metal oxides' (SfB- Seminar)*
32. CECAM Workshop: Understanding Structure and Functions of Reducible Oxide Systems, Zaragoza, Spain, June 23, 2011  
*'Topographic and electronic properties of line defects in the CeO<sub>2</sub>(111) surface'*
33. ECOSS 28, Wroclaw University, September 1, 2011.  
*'Tailoring the properties of oxide materials via doping' (Invited talk)*
34. 15<sup>th</sup> International Workshop on Surface Physics, Ladek Zdroj, September 4, 2011.  
*'Optical spectroscopy at the nanometer scale using a scanning tunnelling microscope' (Invited talk)*
35. University of Oldenburg, Department of Physics, Nano-Optics Group, Prof. Lienau, November 15, 2011.  
*'Das STM: Ein spektroskopische Werkzeugkiste' (Seminar)*

36. Technical University Munich, Department of Chemistry, Catalysis Research Center, Prof. Heiz, December 5, 2011.  
*'Doped oxide materials: Their electronic, optical and adsorption properties'* (Seminar)
37. Free University Berlin, Department of Physics, Prof. I. J. Pascual, January 16, 2012.  
*'Doping of oxide materials: An STM study'* (Seminar)
38. Statusseminar SFB 855 on 'Magnetoelectric Composites', Sankelmark, March 7, 2012  
*'Tailoring the optical properties of oxide materials via doping'*
39. University Duisburg-Essen, Seminar SFB 616, Prof. R. Möller, May 29, 2012.  
*'Doped oxide materials: Their electronic, optical and adsorption properties'* (Seminar)
40. International Conference on Nanoscience & Technology, Paris, July 25, 2012.  
*'Tailoring the properties of oxide materials via doping'* (Invited talk)
41. University Pierre and Marie Curie, Institute for Nanoscience, Profs. C. Noguera and J. Jupille, July 26, 2012.  
*'Exploring polarity at the nanoscale: MgO(111) islands on gold supports'* (Seminar)
42. Complex Surfaces in Material Science, German-Japanese Meeting, Berlin, September 21, 2012. *'Tailoring the shape of metal particles on oxide supports'* (Invited talk)
43. Technologies & Measurements on Atomic Scale (Surface Science School), Khosta, Russia, October, 3, 2012.  
*'STM studies on model catalysts'* (Lecture)
44. German-Korean Symposium on Nano-Optics and Nano-Technology, Delmenhorst, December 13, 2013.  
*'Optical Properties of Doped Oxide Materials'* (Seminar)
45. Physikalisches Kolloquium, Universität Oldenburg, Oldenburg, February 4, 2013.  
*'Functionalized Oxide Surfaces in the STM: From Polarity Tuning to Doping'*
46. Faraday Discussion 162 on fabrication, structure and reactivity of anchored nanoparticles, Berlin, April 11, 2013.  
*'Charge competition with oxygen molecules determines the growth of gold particles on doped CaO films'* (Invited talk)
47. Hauptvortrag 'Tag der Physik', Universität Oldenburg, Oldenburg, November 6, 2013  
*'Von atomaren Ketten und Nanoblumen'*
48. International workshop of oxide surfaces, IWOX, Lake Tahoe, January, 8, 2014.  
*'Charge Transfer Reactions on Oxide Surfaces'*

49. Physikalisches Kolloquium, Universität Osnabrück, Osnabrück, January, 23, 2014  
*'Tailoring Oxide Properties via Doping'*
50. Kompaktseminar der Energie- und Halbleiterforschung, Wangerooge, February, 12, 2014  
*'Investigating Dielectric Materials at the Atomic Scale'*
51. Nano Self-assembly NANOSEA, Marseille, France, July 8, 2014  
*'Self-assembly processes on oxide surfaces' (Keynote Lecture)*
52. 5<sup>th</sup> International Summer School: Modern Computational Science, Oldenburg, August 28, 2014  
*'An Introduction into Scanning Tunnelling Microscopy for Theoreticians'*
53. COST Training school 'Advanced experimental methods for energy materials characterization', Delmenhorst, September 7, 2014  
*'The scanning tunnelling microscope: A spectroscopic toolbox for surface science research'*
54. 1<sup>st</sup> German-Iraqi Workshop on Nano-photonics, Delmenhorst, September 30, 2014  
*'ZnO thin films: From preparation to optical properties'*
55. 7<sup>th</sup> Surface Science Symposium, Matsue, Japan, November 4, 2014  
*'Topographic and spectroscopic fingerprints of doped oxide materials' (Invited talk)*
56. COST CM1104 Workgroup meeting, Osnabrück, May 07, 2015  
*'ZnO thin films: Probing optical properties with the STM'*
57. 2<sup>nd</sup> German-Iraqi Workshop on Nano-photonics, Delmenhorst, September 24, 2015  
*'Polaronic electron transport through CaO thin films'*
58. Spring meeting of the DPG, Regensburg, March 10, 2016,  
*'Conductance phenomena in oxide materials' (Hauptvortrag)*