

Dr. Dunja Popović



CONTACT

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PERSONAL INFO

🌐 Citizenship: Serbian

🌐 Born: 1977-03-27 in Belgrade, Serbia

🌐 Name: Stoltz (2007-2015)

WORK EXPERIENCE

2021- | **TEACHER OF PHYSICS AND MODERN TECHNOLOGIES** Grammar school, Kruševac, Serbia

2018-2020 | **ASSISTANT RESEARCH PROFESSOR** Institute of Physics Belgrade, Serbia

2016-2018 | **COLLEGE PROFESSOR** College of Applied Studies of Technics and Technology, Kruševac, Serbia

2014-2016 | **PHYSICS TEACHER** Primary schools, Rasina district, Serbia

2009-2013 | **ASSISTANT PROFESSOR** KTH Stockholm, Materials Physics, Sweden

2007-2008 | **POSTDOC** Leiden University, The Netherlands– NIMIC-Real Nano postdoc

2006-2007 | **POSTDOC** KTH Stockholm, Materials Physics, Sweden– Göran Gustafsson postdoctoral scholarship

2005-2006 | **POSTDOC** Karlstad University, Sweden – University fellowship

2002-2005 | **TEACHING ASSISTANT** Saarland University, Germany

2000-2002 | **TEACHING ASSISTANT** University of Fribourg, Switzerland

EDUCATION

2005 | **Ph.D. IN NATURAL SCIENCES** Saarland University, Germany

Thesis: Quasiparticle band dispersion in the vicinity of the Fermi surface in quasi-two dimensional systems, Grade: magna cum laude, Supervisor: Prof. Dr. rer. nat. Dr. h.c. mult. S. Hüfner

1999 | **B.Sc. IN PHYSICS** University of Belgrade, Faculty of Physics, Serbia

ADDITIONAL EDUCATION & PROFESSIONAL TRAINING

2024 | **TEACHING LICENSE** Serbia

2016 | **TEACHING METHODS** University of Belgrade, Faculty of Physics, Serbia

2008 | **PROJECT MANAGEMENT COURSE ADSE** Leiden, The Netherlands

2006 | **RADIATION SAFETY TRAINING** KTH Stockholm, Sweden

2005 | **INTERNATIONAL RESEARCH TRAINING GROUP DIPLOMA GRK 532** Germany

2002 | **HIGHER EUROPEAN COURSE FOR USERS OF LARGE EXPERIMENTAL FACILITIES – HERCULES** France

LANGUAGE PROFICIENCY

FLUENT English, German, Swedish **BASIC KNOWLEDGE** Russian, French, Dutch **MOTHER TONGUE** Serbian

2006 | **Svenska B** (Grade: not approved-good-very good-excellent), Kommunal Vuxenutbildning, Sweden

2005 | **GDS – Großes Deutsches Sprachdiplom** (Grade: satisfactory-good-very good), Göthe Institut, Germany

TEACHING EXPERIENCE AT COLLEGE AND UNIVERSITY

2017-2018 | **ENERGY EFFICIENCY** lecturer and course responsible, for 3rd-year students, College of Applied Studies of Technics and Technology, Kruševac, Serbia

2009-2013 | **SURFACE PHYSICS** lecturer and course responsible (with prof. M. Göthelid), for 4th-5th-year students and graduate students in Physics, Microelectronics, Nanotechnology, Chemistry, Materials Engineering, Electrical engineering, KTH Stockholm, Sweden

2002-2005 | **EXPERIMENTAL EXERCISES** for students of physics and natural sciences, Saarland University, Germany

2000-2002 | **EXPERIMENTAL EXERCISES** for students of medicine, University of Fribourg, Switzerland

SUPERVISION OF RESEARCHERS AND PUPILS

2022-2025 | **SECONDARY SCHOOL PUPILS** preparation for physics and astronomy competitions, responsible for researchers's section

2016-2017 | **SECONDARY SCHOOL PUPILS** Supervisor of the winner of the first cycle of the Young Physicist Tournament in Serbia

2014-2016 | **PRIMARY SCHOOL PUPILS** preparation for the physics competition

2011 | **CONTRIBUTIONS TO Ph.D.** A. Önsten, Ph.D. thesis, *Surface reactivity and electronic structure of metal oxides*, KTH Stockholm, Sweden

SYNCHROTRON BEAMTIME

2019 | BLOCH BEAMLINE MAX IV Laboratory, Lund University, Sweden (PI: D. Popović)

2008 | ID03 BEAMLINE ESRF – European radiation synchrotron facility, Grenoble, France (PI: J. Frenken)

2005-2012 | BEAMLINES I311, I511, D1011, BL33 Max-lab, Lund, Sweden (PI: L. Johansson, S. Stoltz, M. Göthelid, U. Karlsson, D. Stoltz)

AWARDS

2024 | TESLA MEDAL Tesla Science Foundation

2010 | YOUNG RESEARCHER AWARD Göran Gustafsson Foundation, Sweden

2002 | BEST POSTER PRIZE HERCULES Workshop, Grenoble, France

SCHOLARSHIPS, FELLOWSHIPS & GRANTS

GRANT Rajko and Maj Djermanović Memorial fund, The Royal Swedish Academy of Sciences, Sweden

POSTDOCTORAL SCHOLARSHIP Göran Gustafsson Foundation, Sweden

POSTDOCTORAL FELLOWSHIP Karlstad University, Sweden

TALENTED STUDENTS SCHOLARSHIP Serbian Academy of Sciences and Arts (SANU), Serbia

STUDENT SCHOLARSHIP Republic of Serbia

SCHOLARSHIP Foundation for the advancement of development of young talents, Kruševac, Serbia

PROJECT MANAGEMENT

2007-2009 | Nano-imaging under industrial conditions (NIMIC – Real Nano), Leiden University, The Netherlands, PI: prof. J. Frenken, my role: **project leader** for ReactorSTM system development

BOOKS & TEXTBOOKS

2024 | Popović, D., Todorović, D. *Energy Efficiency* (college textbook in Serbian), Akademska misao, Beograd, Serbia, ISBN 978-86-6200-005-7

2024 | Popović, D., *The War of the Currents* (popular science drama in Serbian), Akademska misao, Beograd, Serbia, ISBN 978-86-6200-004-0

2019 | Popović, D., Vuković, A., *Climate Change* (university textbook in Serbian), Akademska misao, Beograd, Serbia, ISBN 978-86-7466-770-5

2017 | Popović, D., *Physics of Living and Working Environment* (college textbook in Serbian), VTTŠ SS Kruševac, Serbia, ISBN 978-86-83785-17-9

2009 | Stoltz, D., *Quasiparticle band dispersion in quasi-two dimensional systems: In the vicinity of the Fermi surface*, VDM Verlag, Saarbrücken, Germany, ISBN-13: 978-3639200584

RESEARCH PAPERS

2014 | Herbschleb, C. T., van der Tuijn, P. C., Roobol, S. B., Navarro, V., Bakker, J. W., Liu, Q., Stoltz, D., Canas-Ventura, M. E., Verdoes, G., van Spronsen, M. A., Bergman, M., Crama, L., Taminiu, I., Ofitserov, A., van Baarle, G. J. C., and Frenken, J. W. M., The ReactorSTM: Atomically resolved scanning tunneling microscopy under high-pressure, high-temperature catalytic reaction conditions, *Rev. Sci. Instr.* **85**, 083703

2013 | Önsten, A., Stoltz, D., Palmgren, P., Yu S., Claesson, T., Göthelid, M. and Karlsson, U. O., SO₂ interaction with Zn(0001) and ZnO(0001) and the influence of water, *Surf. Sci.* **608**, 31

2013 | Önsten, A., Weissenrieder, J., Stoltz, D., Yu, S., Göthelid, M. and Karlsson, U. O., Role of Defects in Surface Chemistry on Cu₂O(111), *J. Phys. Chem. C* **117**, 19357

2010 | Önsten, A., Stoltz, D., Palmgren, P., Yu, S., Göthelid, M. and Karlsson, U. O., Water Adsorption on ZnO(0001): Transition from Triangular Surface Structures to a Disordered Hydroxyl Terminated phase, *J. Phys. Chem. C* **114**, 11157

2008 | Stoltz, D., Önsten, A., Karlsson, U. O., and Göthelid, M., Scanning tunneling microscopy of Fe- and O-sublattices on Fe₃O₄(100), *Ultramicroscopy* **108**, 540

2008 | Stoltz, D., Biemann, M., Schlapbach, L., Bovet, M., Berger, H., Göthelid, M., Stoltz, S. E., Starnberg, H. I., Atomic origin of the scanning tunneling microscopy images of charge-density-waves on 1T-TaSe₂, *Physica B* **403**, 2207

2008 | Stoltz, D., Stoltz, S. E., Johansson, L. S. O., Two-dimensional states in the electronic structure of Au/(√3x√3)-R30°-4H-SiC(0001), *J. of Elec. Spec. and Rel. Phen.* **163**, 1

2007 | Stoltz, D., Önsten, A., Karlsson, U. O. and Göthelid, M., High resolution spectroscopic and microscopic signatures of ordered growth of ferrous sulfate in SO₂ assisted corrosion of Fe₃O₄(100), *Appl. Phys. Lett.* **91**, 093107

2007 | Stoltz, D., Biemann, M., Bovet, M., Schlapbach, L., Berger, H., Tunneling evidence for spatial location of the charge-density-wave induced band splitting in 1T-TaSe₂, *Phys. Rev. B* **76**, 073410

2007 | Stoltz, S. E., and Stoltz, D., Spectroscopic evidence for reversible hydrogen storage in unordered Mg₅Ni₁ thin films, *J. of Phys.: Cond. Matter* 19, 446010

2007 | Stoltz, S. E., Popović, D., A high-resolution core-level study of Ni-catalyzed absorption and desorption of hydrogen in Mg films, *Surf. Sci.* 601, 1507

2007 | Stoltz, D., Stoltz, S. E. and Johansson, L. S. O., A high-resolution core-level photoemission study of the Au/4H-SiC(0001)-(√3x√3) interface, *J. Phys.: Condens. Matter* 19, 266006

2007 | Stoltz, D., Stoltz, S. E., Johansson, L. S. O., Surface resonance on the (6√3x6√3)-R30°-reconstructed 5 ML Au on (√3x√3)-R30°-4H-SiC(0001), *Surf. Sci.* 601, 2508

2007 | Stoltz, D., Stoltz, S. E., Widstrand, S. M., Johansson, L. S. O., Investigation of surface structure related features in the multiple-scattering simulations of photoelectron diffraction of 3C-SiC(001)-c(4x2), *Physica B* 395, 130

2007 | Stoltz, D., Stoltz, S. E., X-ray photoelectron diffraction investigation of the cleavage plane in 1T-transition metal dichalcogenides, *Physica B* 398, 172

2005 | Popović, D., Bovet, M., Berger, H., and Aebi P., Fingerprinting substitution sites in Pb,Dy-Bi₂Sr₂Ca₁Cu₂O_{8+δ} using X-ray Photoelectron Diffraction, *Eur. Phys. J. Appl. Phys.* 30, 171-174

2005 | Popović, D., Reinert, F., Huefner, S., Grigoryan, V. G., Springborg, M., Cercellier, H., Fagot-Revurat, Y., Kierren, B. and Malterre, D., High-resolution photoemission on Ag/Au(111): Spin-orbit splitting and electronic localization of the surface state, *Phys. Rev. B* 72, 045419

2004 | Bovet, M., Popović, D., Clerc, F., Koitzsch, C., Probst, U., Bucher, E., Berger, H., Naumović, D., and Aebi, P., Pseudogapped Fermi surfaces of 1T-TaS₂ and 1T-TaSe₂: A charge density wave effect, *Phys. Rev. B* 69, 125117

2001 | Popović, D., Naumovic, D., Bovet, M., Koitzsch, C., Schlapbach, L., Aebi, P., Oxidation of Al-Pd-Mn quasicrystal surfaces, *Surf. Sci.* 492/3, 294

SYNCHROTRON REPORTS

2010 | Stoltz, D., Önsten, A., Weissenrieder, J., Karlsson, U. O., Göthelid, M., Dry oxidation of SO₂ to SO₄ on (√2x√2)-R45°-Fe₃O₄(100). *MAX-lab Activity report 2009*, 234

2007 | Önsten, A., Stoltz, D., Palmgren, P., Classen, T., Göthelid, M., Karlsson, U. O., The chemistry of sulfur dioxide and water on zinc and zinc oxide surfaces. *MAX-lab Activity report 2005-2006*, 302-303

2007 | Stoltz, S. E., Stoltz, D., Reversible hydrogenation of Mg-Ni films. *MAX-lab Activity report 2005-2006*, 192-193

2007 | Stoltz, S. E., Stoltz, D., Photoelectron microscopy study of initial hydride formation in Mg-Ni films. *MAX-lab Activity report 2005-2006*, 82-83

2007 | Stoltz, S. E., Stoltz, D., A high-resolution core-level study of Ni-catalyzed absorption and desorption of hydrogen in Mg-film. *MAX-lab Activity report 2005-2006*, 190-191

2007 | Stoltz, D., Stoltz, S. E., Johansson, L. S. O., A high-resolution core-level photoemission study of the Au/4H-SiC(0001)-(√3x√3) interface. *MAX-lab Activity report 2005-2006*, 98-99

2007 | Stoltz, D., Stoltz, S. E., Johansson, L. S. O., Surface resonance on the (6V3x6V3)-R30^o-reconstructed 5 ML Au on (V3xV3)-R30^o-4H-SiC(0001). *MAX-lab Activity report 2005-2006*, 100-101

2007 | Stoltz, D., Stoltz, S. E., Gurnett, M., Widstrand, S. M., Johansson, L. S. O., Investigation of the surface structure of 3C-SiC(001)-c(4x2) by PED. *MAX-lab Activity report 2005-2006*, 188-189

2005 | Popovic, D., Gurnett, M., Johansson, L., High resolution photoelectron diffraction on the reference system Si(111)-(7x7). *MAX-lab Activity report 2004*, 152

PUBLICATIONS ABOUT TEACHING

2024 | SERBIA, Zrenjanin 10. Scientific conference Entrepreneurship, engineering and management, *Education for green engineering*

2022 | SERBIA, Zrenjanin, ITRO 2022, *Computing Summer School*

2022 | SERBIA, Belgrade 8th International Conference on Industrial Engineering SIE2022, *Applied Mathematical Software Tools For Engineers At Technical College of Applied Sciences in Zrenjanin*

2022 | SERBIA, Zrenjanin International Conference on Physical Aspects of Environment, *Modern teaching of Environmental Physics*

2018 | SERBIA, Zrenjanin 7. Scientific conference Entrepreneurship, engineering and management, *Innovative teaching of natural sciences*

PROFESSIONAL & ADMINISTRATIVE SERVICE

2024 | PROFESSIONAL SOCIETY Delegate of Serbian physical society for the Rasina district section

2024 | PROFESSIONAL SOCIETY Member of State Commission for astronomy competition conducted by Society of Astronomers of Serbia

2016-2017 | PROFESSIONAL SOCIETY President of Serbian physical society for the Rasina district section

2001-2007 | REFEREE PRB, Surface Science, Journal of Physics

OUTREACH

- 2024 | PRESENTATIONS *42 °C, Global Warming Fan*, European researcher's Night, Kruševac, Serbia
- 2024 | PRESENTATION *Tesla in „The War of the Currents“* drama presentation at the international manifestation „Days of Nikola Tesla 2024“ at Kolarac University in Belgrade, Serbia
- 2022 | PRESENTATION *Physics in the eye of the beholder*, Childs week, Šarengrad, Kruševac, Serbia
- 2022 | PRESENTATION *Physics in the eye of the beholder*, European researcher's Night, Kruševac, Serbia
- 2022 | PRESENTATION *Physics comes into play*, European researcher's Night, Kruševac, Serbia
- 2018 | POPULAR SCIENCE LECTURE *Why is science cool?*, „Jovan Popović“ primary school, Kruševac, Serbia
- 2016 | INTERACTIVE EXHIBITION *What makes your hair rise*, Science club Kruševac, Serbia
- 2016 | WORKSHOPS *Physics for free*, Science club Kruševac, Serbia (instructor)
- 2003 | PRESENTATION *Photoelectron spectroscopy* (in German), Open Day at Saarland University, Germany

PRESENTATIONS

- 2019 | CHILE, Santiago University of Chile, DAFNEOX partners meeting, *PES & STM – My selected results (talk)*
- 2018 | SERBIA, Belgrade Institute of Physics Belgrade, *Introduction to vacuum (workshop)*
- 2010 | CHINA, Beijing 18. International Vacuum Congress, *SO₂ on Fe₃O₄(100): From ordered growth of ferrous sulfate till dry oxidation to SO₄ (poster)*
- 2008 | UK, Liverpool European conference on surface science - ECOSS, *ReactorSTM (contributed poster)*
- 2004 | GERMANY, Regensburg DPG Tagung – German physical society meeting, *Structure and dynamics of ultrathin Ag films on Au(111) (talk)*
- 2002 | GERMANY, Saarbrücken GRK workshop A, 2. period, Session X: Preparation and physical characterization of inorganic molecules and materials, *Introduction to ESCA and UPS with high resolution (talk)*
- 2002 | FRANCE, Grenoble 12. HERCULES workshop, *From Surface Segregation to Charge Density Waves by ARPES (poster, best poster prize)*
- 2002 | SWITZERLAND, Zürich ETH, *From Surface Segregation to Charge Density Waves by ARPES (Invited seminar)*
- 2001 | SWITZERLAND, Les Diablerets Materials with novel electronic properties – MANEP meeting, *Charge density wave phases in quasi 2D materials by Angle Scanned Photoemission (talk)*
- 2001 | SWITZERLAND, Dübendorf SPS Meeting, Switzerland, *Oxidation of Al-Pd-Mn quasicrystal surfaces (talk)*
- 2000 | SWITZERLAND, Les Diablerets SLS User Meeting, *Oxidation of Al-Pd-Mn quasicrystal surfaces (poster)*

CONFERENCES & WORKSHOPS ATTENDED

- 2022 | SERBIA, Belgrade meeting: *Contemporary methods of teaching astronomy*
- 2019 | SWEDEN, Stockholm SciLifeLab minisymposium: *Detection and analysis of extracellular vesicles – from technology to clinical application*
- 2016 | SERBIA, Belgrade conference: *New technologies in education*
- 2015 | SERBIA, Kruševac Astronomical society workshop: *Autumn school of observational astronomy*
- 2014 | SERBIA, Niš symposium: *Experiment in modern physics education and International Year of Light*
- 2005 | SWEDEN, Stockholm conference: *13th International Congress on Thin Films ICTF-13 & 8th Atomically Controlled Surfaces Interfaces and Nanostructures ACSIN-8*
- 2005 | GERMANY, Saarbrücken GRK lecture: *Some aspects of drug discovery (Prof. Hartmann)*
- 2004 | FRANCE, Nancy GRK lecture: *Synthesis of organic compounds and solid state peptides, 1D and 2D NMR (Prof. Jamart)*
- 2003 | GERMANY, Bad Honnef Rundgespräch: *Electronic, magnetic and optical properties and applications of nano-systems*
- 2003 | GERMANY, Dresden conference: *DPG Tagung – German Physical Society Meeting*
- 2003 | FRANCE, Strasbourg GRK lecture: *Mass spectroscopy and proteomics (Dr. Emanuelle Leize); Stable carbon isotopes: principles and applications (Dr. Pierre Adam)*
- 2003 | GERMANY, Saarbrücken GRK workshop: *Group for biochemical engineering (Prof. Heinzle)*
- 2003 | GERMANY, Saarbrücken GRK seminar
- 2003 | FRANCE, La Petite-Pierre GRK seminar
- 2003 | FRANCE, Metz GRK workshop: *Laboratory for mass spectroscopy and laser chemistry (Prof. Müller)*
- 2002 | GERMANY, Saarbrücken GRK interactive lecture A: *Physical methods for structural investigation of novel materials*
- 2002 | GERMANY, Spelzenklamm GRK session IX: *Preparation and physical characterization of inorganic molecules and materials*
- 2002 | GERMANY, Saarbrücken workshop: *Accelrys – Introduction to Materials studio (software)*
- 2002 | GERMANY, Orscholz conference: *SFB (Sonderforschungsbereich – Collaborative research centers) meeting*
- 2001 | UK, Daresbury workshop *Analysis (software)*
- 2001 | SWITZERLAND, Grimentz workshop: *Intensive course on strongly correlated systems*