

CURRICULUM VITAE OF DR. JOVANA PETROVIC

Qualifications: PhD, Qualification for supervision and teaching in higher education
Current positions: Gastdozentin, TU Berlin, Germany
Research Professor, Vinca Institute, University of Belgrade, Serbia
Research interests: Photonics, quantum optics and sensing

PERSONAL INFORMATION

Date and place of birth: 15. 02. 1979, Krusevac, Serbia
Marital status: Married, 1 child

ACADEMIC CAREER

Guest Lecturer – Oct 2020 - present
TU Berlin, Germany

Responsibilities:

- Teaching at undergraduate and postgraduate level
- Research
- Securing funding in collaboration with the Berlin University Alliance

Research Professor – June 2019 - present

Associate Research Professor – Feb 2013 - June 2019

Assistant Research Professor – Aug 2011- Jan 2013

Vinca Institute of Nuclear Sciences, University of Belgrade, Serbia

Responsibilities:

- Research project management, team and consortia leadership
- Establishment of photonic laboratories
- Research and student supervision

Laser Scientist – Nov 2018 - Apr 2020

Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany

Postdoctoral Researcher – Oct 2006 – July 2011

Feb 2010 - July 2011 European Laboratory for Nonlinear Spectroscopy, Florence, Italy

Oct 2007 - Nov 2009, Department of Physics, University of Oxford, UK,

Oct 2006 - Sept 2007 Aston University, Birmingham, UK

EDUCATION

Postgraduate Diploma in Learning and Teaching in Higher Education, 2008-2009

University of Oxford, Institute of Learning, UK

Thesis: "Supervision of Doctoral Students - the Role of a Postdoctoral Researcher"

Ph.D. in Optical Physics and Photonics, 2002 - 2006

Aston University, Aston Institute of Photonic Technologies, UK

Thesis: "Modelling of Long Period Gratings in PCFs Inscribed by an Electric Arc and Gratings in SMF Inscribed by Femtosecond Laser Pulses" (Supervisor: Dr. Vladimir Mezentsev)

Dipl. in Optoelectronics and Laser Engineering, 1997-2002

University of Belgrade, School of Electronic Engineering, Serbia

Thesis: "Quantum Cryptography", GPA 96.8%

TEACHING

Postgraduate courses:

- Optical fibre sensors and applications, Berlin School of Optics and Quantum Technologies, WS 2020 - 2021
- Integrated and fibre-optic biosensors, optional, ECTS 9, 2 h/week, Doctoral School of Biophotonics, University of Belgrade, 2015 – 2021
- Photonic sensors, optional, ECTS 15, 3 h/week, Doctoral School of Photonics and Lasers, University of Belgrade, 2016 – 2021

Undergraduate courses:

TU Berlin, Fakultät II - Mathematik und Naturwissenschaften

- Experimental Physik VI: Optik, SoSe 2021
- Fortgeschrittene Praktikum, 2020-2021
- Grundpraktikum, WS 2020-2021

THE MOST IMPORTANT RESEARCH CONTRIBUTIONS (1250 citations, h=14)

- A. Grigorenko, A. K. Geim, H. F. Gleeson, Y. Zhang, A. A. Firsov, I. Y. Khrushchev and J. Petrovic, Nanofabricated Media with Negative Permeability at Visible Frequencies, *Nature* 438, 335 (2005)
- J. Petrovic, V. Mezentsev, H. Dobb, K. Kalli, D. J. Webb and I. Bennion, Sensitivity of LPGs in PCFs Fabricated by an Electric Arc to Temperature, Strain, and External Refractive Index, *Journal of Lightwave Technology* 25(5), 1306 (2007)
- J. Petrovic, I. Herrera, P. Lombardi, F. Schaefer and F. S. Cataliotti, A Multi-State Interferometer on an Atom Chip, *New Journal of Physics* 15, 043002 (2013)
- J. Petrovic, Multiport waveguide couplers with periodic energy exchange, *Optics Letters* 40, 139 (2015)
- M. D. Ivanovic, J. Petrovic, A. Savic, G. Gligoric, M. Miletic, M. Vukcevic, B. Bojovic, Lj. Hadzievski, T. D. P. Allsop and D. J. Webb, Real-time chest-wall-motion tracking by a single optical fibre grating: a prospective method for ventilator triggering, *Physiological Measurement* 39, 045009 (2018)

ACADEMIC LEADERSHIP

SUPERVISION

PhD Thesis supervision, University of Belgrade, Serbia

- Dr. Nevena Ilic-Raicevic, “Evanescent-field sensing of fluid concentration”, 2015
- Dr. Marija Ivanovic, “Optical-Fibre Grating Sensor of Cardiovascular and Respiratory Pulsations”, 2014

Technical supervision of DPhil students, University of Oxford, 2007-2009

Supervision of postdocs, Vinca Institute, Serbia, 2014-2018

COMMITTEE SERVICE

- Assistant Research Professor Appointment Committees, Vinca Institute and the Institute of Physics Belgrade, 2012-present
- Postdoc Appointment Committee, CFEL, DESY, 2019
- PhD and Master Thesis defence Committees, University of Belgrade, 2012-2018
- Vinca Institute Scientific Council, 2013-2014
- Vinca Institute Physics Council, 2014-2016
- HORIZON2020: FET Review panel member
- QUANTERA Review panel member
- Deputy for photonics, Society of Physicists, Serbia, 2014-2016

PROJECT EVALUATION AND MONITORING

FP7/HORIZON2020, Research Executive Agency, European Commission

> 120 reviewed proposals

- Expert evaluator and vice-chair, FET-Open projects, 2012 – 2020
- Expert evaluator, MSCA, 2018 – 2020
- Monitor of 3 FET-Open projects, 2012 - 2018

PROJECT MANAGEMENT AND THIRD-PARTY FUNDING

Projects	Funding sources	Amount (EUR)	Period	Role
Photonics of micro- and nano-structured materials	MESTD*, Serbia	3 700 000	2011-2020	WP Leader in charge of all experiments
Development and Regulation of the University of Belgrade Laser-Laboratory Infrastructure for Education and Research	CEI Know-How Exchange Programme, Grant. No. 1206.004-16	39 900	2017-2020	PI for Serbia
JIVE - Mikro-und Nanostrukturierung mittels Laserstrahlen für biomedizinische Sensorik	BMBF, Ideenwettbewerb Donauraum 2015	78 000	2017-2019	PI for Serbia
International Mobility and Training in Photonics programme (MULTIPLY)	H2020-MSCA-COFUND-2015	3 186 000	2016-2021	Deputy PI, University of Belgrade, Serbia
COST Action MP1205, Advances in Optofluidics: Integration of Optical Control and Photonics with Microfluidics	The European Cooperation in Science and Technology	Not available	2013-2016	Management Committee Member
Multi-State Atom Interferometers	MESTED, Serbia Ministry of Foreign Affairs, Italy	5 000	2013-2015	PI for Serbia
Total	acquired	7 008 900	acquired by Petrovic	706 000

* MESTD – Ministry of Science, Education and Technological Development of the Republic of Serbia

PEER REVIEW

Review of manuscripts for the Nature Group, OSA, IoP, Elsevier:

Scientific Reports, Optics Express, New J. Physics, Optics Communications, J. Physics D, Photonics Technology Letters, J. Optics, J. Modern Optics, Sensors, J. Micromechanical Microengineering, Physica Scripta, Optical and Quantum Electronics, Journal of Physics: Photonics, Review of Scientific Instruments

CURRENT MEMBERSHIP OF THE SCIENTIFIC SOCIETIES

- Deutsche Physikalische Gesellschaft
- Optical Society of America
- Optical Society of Serbia

ACTIVE RESEARCH COLLABORATIONS

Lj. Hadzievski, A. Maluckov, P. Belicev (Vinca Institute, Belgrade, Serbia), U. Woggon (TU Berlin, Germany), M. Gensch and N. Stojanovic (DLR, Berlin, Germany), S. K. Turitsyn and D. J. Webb (Aston Institute of Photonic Technologies, UK), M. Zamfirescu (National Institute for Laser, Plasma and Radiation Physics, Bucharest, Romania), F. Cataliotti (Laboratory for Nonlinear Spectroscopy (LENS), Italy), B. Jelenkovic and A. Krmpot (Institute of Physics Belgrade, Serbia), A. Shvilkin (Harvard Medical School, Boston, Massachusetts, US), B. Malomed (Tel Aviv University, Israel), J.J.P. Veerman (Portland State University, US)

PERSONAL AWARDS AND PRIZES

- Berliner ChancengleichheitsProgramm, Gastdozentur, Germany, 2020
- Stephenson Distinguished Visitor Programme, DESY, Hamburg, Germany, 2016
- L'Oreal For Women in Science Scholarship, Serbia, 2011
- Aston University Colours for Exceptional Committee Service, 2006
- Overseas Research Student Award, UK Government, 2003 - 2005
- Scholarship for young talents, City Council of Krusevac, Serbia, 1996 - 2003
- Norwegian Embassy Award to the best student in the class, Serbia, 2002
- The Best Student Award, School of Physical Electronics, Univ. of Belgrade, 2002

INNOVATION ACTIVITIES

Chief Technology Officer of Diasens, Ltd., 2012 - 2018

Joint spin-off of the Vinca Institute and Aston University

Founder and CEO of Physic Pro, Ent., 2015 - 2017

Start-up for technical consultancy services in optical and medical technology

Team leader at HeartBeam, Inc., US, 2015 - 2016

OUTREACH

- Vinca Institute Outreach 2013 - 2016:
 - Vinca Open Door - for general public
 - Vinca Classrooms - for secondary school pupils
- TV coverage:
 - Fibre-optic sensors for applications in pulmonology, Science TV, Serbia, 2016
 - A Fibre-Optic Sensor vs. Spirometer exhibition at the Belgrade Technical Fair, National Radio-Television, Serbia, 2014
 - Live debate with the State Secretary of Science, Studio B, Serbia, 2012
- Lectures at Petnica Science Centre and secondary schools, Serbia, 2012-2015
- Wide media coverage of research upon reception of the L'Oreal Women in Science Award, Serbia, 2012
- Media coverage of the research on metamaterials (Nature, 2005) by The Economist, Laser Focus World, Optics and Photonics News, Physics World, Nature Photonics