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Andreja Šarlah

PERSONAL DATA

Born: 26. 1. 1974, Ljubljana
Gender: female
Nationality: Slovene
Marital status: married, 4 children

APPOINTMENTS

2004–present *University of Ljubljana, Faculty of Mathematics and Physics, Department of Physics, Ljubljana, Slovenia; teaching and research assistant*

2013–2013 *NAMASTE (Napredni nekovinski materiali s tehnologijami prihodnosti) Center of Excellence, Ljubljana, Slovenia; researcher*

2003–2004 *Hahn-Meitner Institute, Berlin, Germany; guest scientist and Alexander von Humboldt postdoctoral fellow*

2001–2003 *University of Ljubljana, Faculty of Mathematics and Physics, Department of Physics, Ljubljana, Slovenia; teaching assistant*

1997–2001 *University of Ljubljana, Faculty of Mathematics and Physics, Department of Physics, Ljubljana, Slovenia; young researcher*

EDUCATION

2003–2004 *Hahn-Meitner Institute, Berlin, Germany*
postdoctoral training; mentor Prof. Dr. E. Frey

1997–2001 *University of Ljubljana, Faculty of Mathematics and Physics, Department of Physics, Ljubljana, Slovenia*
PhD in Physics; mentor Prof. Dr. S. Žumer

1992–1997 *University of Ljubljana, Faculty of Mathematics and Physics, Department of Physics, Ljubljana, Slovenia*
Masters Degree/University diploma in Physics; mentor Prof. Dr. S. Žumer
University of Ljubljana "Faculty Prešern's award" for the outstanding Diploma work (December 1997)

RESEARCH INTERESTS

- theory and modeling of structure and mechanism of biomolecular motors; mechanochemical models of molecular motors; stochastic kinetic models; kinetic Monte Carlo;
- critical phenomena in low-dimensional systems; colloidal systems; mean-field theory; Monte Carlo simulations;
- colloids on free-standing smectic films; forces between colloidal particles in free-standing smectic films;
- phenomenological theory of liquid crystals; collective order parameter fluctuations in confined geometries; mean-field theory; elasticity of liquid crystals; anchoring; light scattering of liquid crystals;
- van der Waals force between dielectrically anisotropic media;

TEACHING

- *Department of Physics, Faculty of Mathematics and Physics, University of Ljubljana*
Physics I; Physics II; Quantum mechanics II; Physical lab I; Physical lab II; Physical lab III; Physical lab IV; Theoretical physics I; Theoretical physics II
- *Department of Mathematics, Faculty of Mathematics and Physics, University of Ljubljana*
Physics; Classical physics; Modern physics
- Physics for non-physics students at University of Ljubljana
Biotechnical Faculty (Food technology, Biology, Food science and nutrition); *Faculty of Pharmacy* (Laboratory biomedicine, Pharmacy); *Faculty of Chemistry in Chemical Technology* (Chemistry, Technical safety); *Faculty of Natural Sciences and Engineering* (Textiles, Graphical and interactive communications)

WORK EXPERIENCE AND COMPETENCE

- scientific and research work
- preparation of research plans and applications
- problem solving, modeling
- preparation of scientific, professional and public reports and presentations
- teaching
- analytical thinking
- the ability to work both independently and in team
- reliable, responsible, precise, ambitious
- the ability of non-confrontational relations and team-working
- the ability of communicating and reasoning
- the ability to motivate and inspire co-workers
- quick learning and adaptation to a new situation

AWARDS AND FELLOWSHIPS

- 2003–2004 *Humboldt fellowship*
2 year research fellowship of the “Alexander von Humboldt Foundation”, Bonn, Germany
- XI. 2001 1 month research (and computing) grant in the framework of the MINOS project (European Commission Research Directorate – General F Human Potential and Mobility Program); Bologna, Italy
- IV. 1999 “*Young Physicists Poster Prize Competition*” award for the poster presented on the meeting of the European physical society, London, UK
- XII. 1997 *Faculty Prešern’s award for the outstanding Diploma work (Masters thesis)*
- 1988–1997 *Zois fellowship*; national fellowship for gifted students

ORGANIZING EXPERIENCE

- 2007 member of the organizing committee of “FIZIKA!” – meeting of the alumni of UL FMF, Department of Physics, Ljubljana, Slovenia
- 2003–2004 co-worker on the “Long night of science” (*Lange Nacht der Wissenschaften*), Hahn-Meitner Institute, Berlin, Germany
- 2002–2003 co-worker with “Meet the physicists” (*Kam po diplomi?*) – meetings with alumni to help undergraduate physics students decide what they wanted to do after they graduate
- 2000 member of the organizing committee of the SILC Mini School, Portorož, Slovenia

LANGUAGES

Slovene (native speaker)
English (advanced), German (advanced; "Oberstufenprüfung" degree from the Goethe institut, Berlin, Germany, 2003)

COMPUTER SKILLS

C++, Mathematica, \LaTeX
IncScape, PovRay, GnuPlot
general programs for Linux and Windows

OTHER

mentor for student's seminars and a diploma thesis
public lectures to promote physics and science among high school students
(Person of the 20th century is a physicist. Coincidence?, Liquid crystals, 2003; Physics in the winter, 2011, 2013)

REFERENCES

Prof. Dr. S. Žumer

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