

# Curriculum Vitae

## PERSONAL INFORMATION

Name and surname **Suzana Szilner**  
Academic title PhD Physics  
Year and institution of PhD obtained 2001, University of Zagreb and University Louis Pasteur, Strasbourg  
Address Ruđer Bošković Institute  
Division of Experimental Physics  
Zagreb, Croatia  
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Citizenship Croatian  
Date and place of birth 31.01.1967. Osijek

## WORK EXPERIENCE

Date (from - until) 2008 - today  
Institution Ruđer Bošković Institute  
Position Senior research associate  
Work field Experimental nuclear physics

Date (from - until) 2003 - 2008  
Institution Ruđer Bošković Institute  
Position Research associate  
Work field Experimental nuclear physics

Date (from - until) 2001 - 2003  
Institution Ruđer Bošković Institute  
Position Senior assistant  
Work field Experimental nuclear physics

Date (from - until) 1998 - 2001  
Institution Ruđer Bošković Institute  
Position Assistant  
Work field Experimental nuclear physics

Date (from - until) 1995 - 1998  
Institution Ruđer Bošković Institute  
Position Junior assistant  
Work field Experimental nuclear physics

## EDUCATION (CHRONOLOGICALLY)

Date 2001  
Place Zagreb  
Institution Faculty of Science, University of Zagreb and University Louis Pasteur, Strasbourg  
Title of Ph.D. in nuclear physics

qualification awarded  
     Date 1998  
     Place Zagreb  
     Institution Faculty of Science, University of Zagreb  
     Title of M.Sc. in nuclear physics  
 qualification awarded  
     Date 1993  
     Place Zagreb  
     Institution Faculty of Science, University of Zagreb  
     Title of B.Sc in physics  
 qualification awarded

## TRAINING

    Year 2001 - 2003  
     Place Padova  
     Institution INFN-Laboratori Nazionali di Legnaro  
 Subject and skills covered Post-doctoral fellowship, experimental nuclear physics  
  
     Year 1998 - 2000 (~4 months per year)  
     Place Strasbourg  
     Institution Institut de Recherches Subatomiques  
 Subject and skills covered experimental work for Ph.D. Thesis, experimental nuclear physics  
  
     Year 1995  
     Place Strasbourg  
     Institution Institut de Recherches Subatomiques  
 Subject and skills covered experimental work for M.Sc. Thesis, experimental nuclear physics

## LANGUAGES

**MOTHER TONGUE** **Croatian**  
**ENGLISH LANGUAGE**  
     Speaking good  
     Writing good  
     Reading very good

## OTHER FOREIGN LANGUAGES

Language **Italian**  
     Speaking basic  
     Writing basic  
     Reading good  
 Language **French**  
     Speaking basic  
     Writing basic  
     Reading good

## RESEARCH AND OTHER PROJECTS

(CHRONOLOGICALLY; LEADER AND ASSOCIATES; FUNDING SOURCE)

Project leader of the MSES project: *Nuclear structure and reaction: experimental approach*, since 2007.

Collaborator of the FP7 project CLUNA *Clustering phenomena in nuclear physics: strengthening of the Zagreb - Catania - Birmingham partnership* (FP7-REGPOT-2007-3), 2008 - 2011.

Collaborator of the FP7 project PD *Particle Detectors: Upgraded Facility for Development of Silicon and Diamond Particle Detector Systems* (FP7-REGPOT-2010-5), 2010 - 2014.

Collaborator of the Croatian Science Foundation project: EuroGENESIS, *Origin of the Elements and Nuclear History of the Universe within Physics of compact objects: explosive nucleosynthesis and evolution*, 2009 - 2013.

I was project leader of the bilateral project between Croatia and France (Program "Cogito")

Partnership Hubert Curien), *Correlations in nuclei – nucleon pairs and clusters*, 2008 - 2010.  
I was collaborator of the MSES project: *Heavy ion physics*, project leader Z. Basrak, 2001 -2007.

## TEACHING

(CHRONOLOGICALLY; UNDERGRADUATE, GRADUATE , POSTGRADUATE STUDY PROGRAMMES)

Seminars within a course: Experimental methods in physics at the Physics Department of the University of Zagreb.

Postgraduate seminars with the subject in the experimental nuclear physics at the University of Zagreb.

## MENTORSHIP OF DEFENDED DOCTORAL AND MASTER DISSERTATIONS AND TRAINING OF YOUNG RESEARCHERS AND SCIENTISTS

(CHRONOLOGICALLY)

2009, diploma thesis (I. Morić) Faculty of Sciences, University of Zagreb.

Ongoing Ph. D. theses (M. Varga Pajtler and T. Mijatović), University of Zagreb.

## VISITS TO FOREIGN RESEARCH AND EDUCATION INSTITUTIONS

(CHRONOLOGICALLY; ONLY VISITS LONGER THAN 3 MONTHS)

2003 - 2013, several months per year within Prisma-Clara/Agata collaboration at Laboratori Nazionali di Legnaro;

April – June 2006, invited professor at L. Pasteur University, Strasbourg;

2001 - 2003, INFN- Laboratori Nazionali di Legnaro, Padova, pos-doctoral fellow;

1998 - 2000, Institut de Recherches Subatomiques (IReS) several months per year within the convention between the University of Zagreb and L. Pasteur University, Strasbourg;

October - December 1998, LPC, Caen, within the Ph.D. students exchange program;

April - August 1995, IReS, experimental work within M. Sc. Thesis.

## AWARDS AND RECOGNITIONS

(CHRONOLOGICALLY)

2009, MSOS award for the scientific excellence

## ORGANIZATIONAL SKILLS AND COMPETENCES

(CHRONOLOGICALLY; ORGANIZATION OF HOME AND INTERNATIONAL SCIENCE EVENTS )

Co-chairman of the international conferences “Nuclear Structure and Dynamics”, 2009, Dubrovnik (NSD09) and 2012, Opatija (NSD12), Croatia.

Co-chairman of the international conference “Highlights in Heavy-Ion Physics, A Symposium in Honour of Nikola Cindro”, 2011, in Split;

Member of the organizing committee of the Scientific meetings of the Croatian Physical Society, 2009, and 2013, Primošten, Croatia;

Member of the organizing committee of the international conferences CLUSTER99, 1999, Rab, Croatia, and FUSION06, 2006, Venice, Italy.

## MEMBERSHIP IN SCIENCE ORGANIZATIONS AND BODIES

(CHRONOLOGICALLY; HOME AND INTERNATIONAL ORGANIZATIONS AND BODIES)

Croatian Physical Society, European Physical Society

## COMMISSIONS, COMMITTEES, BOARDS AND WORK GROUPS

(CHRONOLOGICALLY; HOME AND INTERNATIONAL)

Member of Board of governors of Ruđer Bošković Institute (2008 - 2012)

Member of Scientific Steering Committee of the European Nuclear Science and Applications Research within the ENSAR2 project (since 2013).

## PAPERS

(CHRONOLOGICALLY; RESEARCH BOOKS, HOME AND INTERNATIONAL RESEARCH JOURNALS, HOME AND INTERNATIONAL CONFERENCE PROCEEDINGS; PLEASE WRITE THEIR IMPACT FACTOR)

Web of Science (10.10.2013.): 104 scientific publications, 1651 citations (1347 without self-citation), h-index=14. The most of them have been published in Phys. Rev. C (about 40, If=3.308). Part of them (about 5) have been published as letters (Phys. Lett. B with IF=3.955, and Phys. Rev. Lett. With IF=7.370).

A list of scientific publications that best represent my area of research:

- 1) M.P. Nicoli, F. Haas, R.M. Freeman, N. Aissaoui, C. Beck, A. Elanique, F. Nouicer, A. Morsad, S. Szilner, Z. Basrak, M.E. Brandan and G.R. Satchler: *The elastic scattering of  $^{16}\text{O}+^{16}\text{O}$  at energies  $E/A$  between 5 and 8 MeV: strong energy dependence of the absorption*, Phys. Rev. C 60 (1999) 064608. (cited: 57)
- 2) A. Gadea, D.R. Napoli, G. de Angelis, R. Menegazzo, A.M. Stefanini, L. Corradi, M. Axiotis, L. Berti, E. Fioretto, T. Kroell, A. Latina, N. Marginean, G. Maron, T. Martinez, D. Rosso, C. Rusu, N. Toniolo, S. Szilner, M. Trotta, D. Bazzacco, S. Beghini, M. Bellato, F. Brandolini, E. Farnea, R. Isocrate, S.M. Lenzi, S. Lunardi, G. Montagnoli, P. Pavan, C.R. Alvarez, F. Scarlassara, C.A. Ur, N. Blasi, A. Bracco, F. Camera, S. Leoni, B. Million, M. Pignanelli, G. Pollarolo, A. DeRosa, C. Inghima, M. La Commara, G. La Rana, D. Pierroutsakou, M. Romoli, M. Sandoli, P.G. Bizzeti, A.M. Bizzeti-Sona, G. Lo Bianco, C.M. Petrache, A. Zucchiatti, P. Cocconi, B. Quintana, C. Beck, D. Curien, G. Duchene, F. Haas, P. Medina, P. Papka, J. Durell, S.J. Freeman, A. Smith, B. Varley, K. Fayz, V. Pucknell, J. Simpson, W. Gelletly, P. Regan: *Coupling a CLOVER detector array with the PRISMA magnetic spectrometer: Investigation of moderately neutron-rich nuclei populated by multinucleon transfer and deep inelastic collisions*, Eur. Phys. J. A 20 (2004) 193-197. (cited: 121)
- 3) S. Szilner, L. Corradi, G. Pollarolo, S. Beghini, B.R. Behera, E. Fioretto, A. Gadea, F. Haas, A. Latina, G. Montagnoli, F. Scarlassara, A.M. Stefanini, M. Trotta, A.M. Vinodkumar, Y. Wu: *Multinucleon transfer processes in  $^{40}\text{Ca}+^{208}\text{Pb}$* , Phys. Rev. C 71 (2005) 044610/1-8. (cited: 32)
- 4) S. Beghini, L. Corradi, E. Fioretto, A. Gadea, A. Latina, G. Montagnoli, F. Scarlassara, A.M. Stefanini, S. Szilner, M. Trotta and A.M. Vinodkumar: *The Focal Plane Detector of the magnetic spectrometer PRISMA*, Nucl. Instr. and Meth. in Phys. Res. A 551 (2005) 364-374. (cited:39)
- 5) S. Szilner, C.A. Ur, L. Corradi, N. Marginean, G. Pollarolo, A.M. Stefanini, S. Beghini, B.R. Behera, E. Fioretto, A. Gadea, B. Guiot, A. Latina, P. Mason, G. Montagnoli, F. Scarlassara, M. Trotta, G. de Angelis, F. Della Vedova, E. Farnea, F. Haas, S. Lenzi, S. Lunardi, R. M̄arginean, R. Menegazzo, D.R. Napoli, M. Nespolo, I.V. Pokrovsky, F. Recchia, M. Romoli, M.-D. Salsac, N. Soic, and J. J. Valiente-Dobon: *Multinucleon transfer reactions in closed-shell nuclei*, Phys. Rev. C 76 (2007) 024604/1-9. (cited: 45)
- 6) J.J. Valiente-Dobon, D. Mengoni, A. Gadea, E. Farnea, S.M. Lenzi, S. Lunardi, A. Dewald, T. Pissulla, S. Szilner, A.M. Stefanini, R. Broda, F. Recchia, A. Algora, L. Angus, D. Bazzacco, G. Benzoni, P.G. Bizzeti, A.M. Bizzeti-Sona, P. Boutachkov, L. Corradi, F. Crespi, G. de Angelis, E. Fioretto, A. Gorgen, M. Gorska, A. Gottardo, E. Grodner, A. Howard, W. Krolas, S. Leoni, P. Mason, R. Menegazzo, D. Montanari, G. Montagnoli, D.R. Napoli, A. Obertelli, T. Pawlat, B. Rubio, E. Sahin, F. Scarlassara, J.F. Smith, D. Steppenbeck, C.A. Ur, P.T. Wady, J. Wrzesinski, E. Maglione, I. Hamamoto: *Lifetime measurements of the neutron-rich  $N=30$  isotones  $^{50}\text{Ca}$  and  $^{51}\text{Sc}$ : Orbital dependence of effective charges in the fp shell*, Phys. Rev. Lett. 102 (2009) 242502/1-5. (cited:39)
- 7) L. Corradi, G. Pollarolo, S. Szilner: *Multinucleon transfer processes in heavy-ion reactions*, Journal of Physics G - Nuclear and Particle Physics 36 (2009) 113101/1-43. (cited:57)
- 8) S. Szilner, L. Corradi, F. Hass, D. Lebhertz, G. Pollarolo, C.A. Ur, L. Angus, S. Beghini, M. Bouhelal, R. Chapman, E. Caurier, E. Farnea, E. Fioretto, A. Gadea, A. Goasduff, D. Jelavic Malenica, V. Kumar, S. Lunardi, N. Marginean, P. Mason, D. Mengoni, G. Montagnoli, F. Nowacki, F. Recchia, E. Sahin, M.-D. Salsac, F. Scarlassara, R. Silvestri, J.F. Smith, N. Soic, A.M. Stefanini, J.J. Valiente-Dobon: *Interplay between single-particle and collective excitations in argon isotopes populated by transfer reactions*, Phys. Rev. C 84 (2011) 014325/1-7. (cited:18)
- 9) L. Corradi, S. Szilner, G. Pollarolo, G. Colo, P. Mason, E. Farnea, E. Fioretto, A. Gadea, F. Haas, D. Jelavic Malenica, N. Marginean, C. Michelagnoli, G. Montagnoli, D. Montanari, F. Scarlassara, N. Soic, A.M. Stefanini, C.A. Ur, J.J. Valiente-Dobon: *Single and pair neutron transfers at sub barrier energies*, Phys. Rev. C 84 (2011) 034603/1-10. (cited: 18)
- 10) S. Szilner, L. Corradi, F. Haas, G. Pollarolo, L. Angus, S. Beghini, M. Bouhelal, R. Chapman, E. Caurier, S. Courtin, E. Farnea, E. Fioretto, A. Gadea, A. Goasduff, D. Jelavic Malenica, V. Kumar, S. Lunardi, N. Marginean, D. Mengoni, T. Mijatovic, G. Montagnoli, F. Recchia, E. Sahin, M.-D. Salsac, F. Scarlassara, J. F. Smith, N. Soic, A. M. Stefanini, C. A. Ur, and J. J. Valiente-Dobon: *Structure of chlorine isotopes populated by heavy ion transfer reactions*, Phys. Rev. C 87 (2013) 054322/1-12.

#### OTHER RESEARCH ACTIVITIES

(CHRONOLOGICALLY; CHIEF EDITOR OR EDITOR OF RESEARCH BOOK, HOME AND INTERNATIONAL RESEARCH JOURNALS, HOME AND INTERNATIONAL CONFERENCE PROCEEDINGS AND OTHER)

Co-editor of the AIP Conf. Proc. No. 1165: M.Milin, T.Nikšić, S.Szilner, D.Vretenar: *Proceedings of the International Conference „Nuclear Structure and Dynamics”, American Institute of Physics, 2009.*

Co-editor of the AIP Conf. Proc. No. 1491: T.Nikšić, M.Milin, S.Szilner, D.Vretenar: *Proceedings of*

*the International Conference „Nuclear Structure and Dynamics II”, American Institute of Physics, 2012.*

Co-editor of the AIP conference proceedings No. 853, international conference FUSION06.

Invited speaker at 8 international conferences.

Spokesperson of more than 10 experiments at international facilities (INFN-LNL, Legnaro, Italy; ISOLDE, CERN, Geneva, Switzerland; HH National Institute for Physics and Nuclear Engineering, Bucharest, Romania).

#### **COMPUTER SKILLS**

OS: Linux, Unix, Windows

Languages: Fortran.

Standard software used in experimental nuclear physics: PAW, GSORT ...

#### **OTHER IMPORTANT SKILLS AND COMPETENCES**

I participated to the more than 60 nuclear physics experiments at different accelerator facilities in Europe: LNL-INFN, Legnaro and LNS-INFN, Catania, Italy, VIVITRON accelerator, IReS, Strasbourg, Ganil, Caen, and IPNO, Orsay, France, UCL, Louvain-la-Neuve, Belgium, Horia Hulubei National Institute for Physics and Nuclear Engineering, Bucharest, Romania, and Dynamitron accelerator at University of Stuttgart, Germany.

I actively participated to the development and building of the focal plane detectors of the PRISMA spectrometer. I also actively participated to the PRISMA-CLARA/AGATA campaigns at INFN - LNL.

#### **ADDITIONAL INFORMATION AND NOTES**

I actively participated to the manifestation “Open days” at the Ruđer Bošković Institute, and to the exhibition “Irises - the Croatian flower: the view through science, culture and art”.

I'm co-author of the booklet “The world of the atomic nuclei” where the newest achievement of nuclear physics is presented in a popular way.