

# Vinko Šurija

Institute of physics  
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## General information

Date of birth 17.09.1988. Nationality Croatian

## Education

2013. – present **PhD**, *Condensed matter physics*, Faculty of science, University of Zagreb.

2007. – 2012. **M.Sc in physics**, Faculty of science, University of Zagreb, 4.725/5.0 GPA.

### Master thesis

Title *Magnetic dynamics of quasi-2D system  $Fe_8Te_{12}O_{32}Cl_6$*

Supervisor: Dr.Sc. Ivica Živković

## Employment

03/2013–present **Collaborator on project (PhD student)**, *Institute of physics*, Zagreb, Croatia.

- main experimental method for PhD thesis: neutron scattering
- design and development of in-house made SQUID magnetometer
- automation and software development of AC susceptibility measurements

## Work experience

03/2015–present **Collaborator on project**, *Institute of physics*, Zagreb, Croatia.  
EUROfusion WPEDU PhD

03/2013–03/2016 **Collaborator on project**, *Institute of physics*, Zagreb, Croatia.  
"Investigation of a tetramer system  $SeCuO_3$  and similar quantum magnets"

11/2011–10/2014 **Collaborator on project**, *Institute of physics*, Zagreb, Croatia.  
Croatian science foundation project: "Complex magnetic systems"

07/2011–08/2011 **Summer intern**, *EPFL*, Lausanne, Switzerland.  
Equipment and software development, under supervision of prof. Henrik Rønnow

## Conferences and schools

2017 International Conference on Neutron Scattering 2017; Daejeon, Korea; oral presentation

2015 European Fusion Programme Workshop; Zakopane, Poland

2015 European Fusion Programme Workshop; Bled, Slovenia

2014 European Fusion Programme Workshop; Split, Croatia

- 2014 8<sup>th</sup> Croatian physical association meeting; poster presentation
- 2013 JCNS Neutron Laboratory Course 2013; Jülich, Germany
- 2012 43<sup>rd</sup> IFF Spring School, Scattering Methods for Condensed Matter Research: Towards Novel Applications at Future Sources; Jülich, Germany
- 2011 7<sup>th</sup> Croatian physical association meeting; poster presentation

## Scholarship

- 2014–present EUROATOM Fusion PhD fellow
  - 2011 National foundation for student standard support (gifted students category)
- 2008–2010 Republic of Croatia scholarship (gifted students category)

## Language

Croatian	<b>Native</b>	
English	<b>Fluent</b>	<i>Fluent in conversation and writing</i>
German	<b>Intermediate</b>	<i>Advanced in conversation and basic in writing</i>
Italian	<b>Intermediate</b>	<i>Intermediate in conversation and writing</i>

## Technical skills

- Programing languages VB.Net, C#, C/C++, Java,  $\LaTeX$ , Python
- Tools MATLAB, Wolfram Mathematica, LabVIEW
- Scientific Neutron scattering, FullProf analysis
- Other Instrument communication and automation, measurement techniques development, microcontroller IoT, PCB design

## Interests

I am interested in research and development of scientific measurement techniques, including both the hardware and software.

## Publications

- [1] I. Levatić, P. Popčević, V. Šurija, A. Kruchkov, H. Berger, A. Magrez, J. S. White, H. M. Rønnow, and I. Živković, “Dramatic pressure-driven enhancement of bulk skyrmion stability,” *Scientific Reports*, vol. 6, p. 21347, 2016.
- [2] I. Levatić, V. Šurija, H. Berger, and I. Živković, “Dissipation processes in the insulating skyrmion compound Cu<sub>2</sub>OSeO<sub>3</sub>,” *Physical Review B*, vol. 90, no. 22, p. 224412, 2014.
- [3] M. Prester, I. Živković, D. Drobac, V. Šurija, D. Pajić, and H. Berger, “Slow magnetic dynamics and hysteresis loops of the bulk ferromagnet Co<sub>7</sub>(TeO<sub>3</sub>)<sub>4</sub>Br<sub>6</sub>,” *Physical Review B*, vol. 84, no. 6, 2011.