

CV

PERSONAL INFORMATION

NAME: **Sanja**

LAST NAME: **Janićević**

DATE OF BIRTH: 23.08.1978.

PLACE OF BIRTH: Belgrade, Serbia

TITLE: **Assistant research professor** (appointed 31.10.2012., reappointed 25.04.2018.)

Assistant with PhD (appointed 16.01.2019.)

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WEB: <https://sites.google.com/site/janicevicsanja/>

https://www.researchgate.net/profile/Sanja_Janicevic



EDUCATION

- **Bachelor of Science**, Faculty of Sciences, Department of Physics, University of Kragujevac, Serbia, 14. 11. 2002.

Average mark: 9.90 (/10)

Graduation Thesis Title: ***Mechanical properties of polymer materials***

(Supervisor Prof. Dr. Dragica Knežević – experimental part done in the Polymer Research Institute, GmbH Borealis, Linz, Austria, and the theoretical under supervision of Prof. Dr. Dragice Knežević)

- **Magister of Science**, Theoretical condensed-matter physics, Faculty of Physics, University of Belgrade, Serbia, 14. 04. 2006.

Average mark: 9.80 (/10)

Thesis Title: ***Analysis of critical behavior of random field Ising model***

(Supervisor Prof. Dr. Milan Knežević, commission: Prof. Dr. Milan Knežević, Prof. Dr. Srđan Bukvić, Prof. Dr. Dragica Knežević)

- **PhD**, Theoretical condensed-matter physics, Faculty of Physics, University of Belgrade, Serbia, 16. 03. 2012.

Dissertation Title: ***Dynamics of the two dimensional random field Ising model***

(Supervisor Prof. Dr. Đorđe Spasojević, commission: Prof. Dr. Milan Knežević, Prof. Dr. Đorđe Spasojević, Prof. Dr. Srđan Bukvić, Prof. Dr. Dragica Knežević)

LIST OF PUBLICATIONS

- 1) Dj. Spasojević, S. Janičević, M. Knežević, **Exact Results for Mean Field Zero Temperature Random Field Ising Model**, *Europhys. Lett.* **76**, 912-918 (2006).
<http://iopscience.iop.org/0295-5075/76/5/912/>
IF=2.237
- 2) Dj. Spasojević, S. Janičević, M. Knežević, **Numerical Evidence for Critical Behavior of the Two-Dimensional Nonequilibrium Zero-Temperature Random Field Ising Model**, *Phys. Rev. Lett.* **106**, 175701 (2011).
<http://prl.aps.org/abstract/PRL/v106/i17/e175701>
IF=7.943
- 3) Dj. Spasojević, S. Janičević, M. Knežević, **Avalanche Distributions in the Two-Dimensional Nonequilibrium Zero-Temperature Random Field Ising Model**, *Phys. Rev. E* **84**, 051119 (2011).
<http://pre.aps.org/abstract/PRE/v84/i5/e051119>
IF=2.352
- 4) Dj. Spasojević, S. Janičević, M. Knežević, **Analysis of spanning avalanches in the two-dimensional nonequilibrium zero-temperature random-field Ising model**, *Phys. Rev. E* **89**, 012118 (2014).
<http://pre.aps.org/abstract/PRE/v89/i1/e012118>
IF=2.288
- 5) S. Janičević, M. Ovaska, M. J. Alava, and L. Laurson, **Avalanches in 2D dislocation systems without applied stresses**, *J. Stat. Mech.* **P07016**, (2015).
<http://iopscience.iop.org/1742-5468/2015/7/P07016>
IF=2.404
- 6) C. Manzato, S. Janičević, M. J. Alava, **The random loading problem in fuse networks**, *Eur. Phys. J. B* **88**, 183 (2015).
<http://link.springer.com/10.1140/epjb/e2015-60376-x>
IF=1.463
- 7) S. Janičević, L. Laurson, K. J. Måløy, S. Santucci, and M. J. Alava, **Interevent Correlations from Avalanches Hiding Below the Detection Threshold**, *Phys. Rev. Lett.* **117**, 230601 (2016).
<https://doi.org/10.1103/PhysRevLett.117.230601> Also featured in APS Physics, and by IOP Physics World "Flash Physics"
IF=8.839
- 8) S. Janičević, S. Mijatović, and Dj. Spasojević, **Critical behavior of the two-dimensional nonequilibrium zero-temperature random field Ising model on a triangular lattice**, *Phys. Rev. E* **95**, 042131 (2017).
<https://journals.aps.org/pre/abstract/10.1103/PhysRevE.95.042131>
IF=2.366
- 9) S. Janičević, L. Laurson, K. J. Måløy, S. Santucci, and M. J. Alava, **Janičević et al. Reply**, *Phys. Rev. Lett.* **119**, 188901 (2017).
<https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.119.188901>
IF=8.839
- 10) S. Janičević, D. Jovković, L. Laurson, and Dj. Spasojević, **Threshold-induced correlations in the Random Field Ising Model**, *Scientific Reports* **8**, 2571 (2018).
<https://www.nature.com/articles/s41598-018-20759-6>
IF=4.259

BOOKS

Dr Knežević, D., Janičević, S., **Zbirka zadataka iz kvantne statističke fizike**, Fizički fakultet Beograd, Prirodno-matematički fakultet Kragujevac, December 2008.

CURRENT RESEARCH ACTIVITIES – INTERNATIONAL COLLABORATION:

- Multi-fractal analysis of the Barkhausen noise signals and scaling of the critical avalanches in thin random-field ferromagnets with an open boundary (**in collaboration with Bosiljka Tadić, Jozef Stefan Institut, Ljubljana, Slovenia**)
- Domains of scaling in the three-dimensional nonequilibrium athermal random field Ising model (**in collaboration with Prof. Eduard Vives, Barcelona University, Spain**)
- Experimental study of correlations in Barkhausen noise emissions from ferromagnetic materials; comparison with the results of numerical simulations of random field Ising model on 2D and 3D lattices (**in collaboration with Dr. Lasse Laurson, Aalto University, Helsinki, Finland**)
- Scaling of connected and disconnected magnetic susceptibility in 3D and 4D athermal random field Ising model, comparison of results obtained by RG and numerical simulations (**in collaboration with Dr. Ivan Balog, Institute for Physics, Zagreb, Croatia**)

CONFERENCES AND SEMINARS

- 6-7. May 2005. Otočec, Slovenia, The European Forum for Early Career Researchers jointly organised by the Marie Curie Fellowship Association and the Slovenian public foundation Ad Futura.
Poster: **"Modeling of Barkhausen noise with random field Ising model"** (Dj. Spasojević, S. Janičević)
- XVII Symposium on Condensed Matter Physics - SFKM 2007 Vršac, Serbia, 16 - 20 September 2007.
Invited talk: **"Some New Results for Zero Temperature Random Field Ising model"** (Dj. Spasojević, S. Janičević, M. Knežević)
- XVIII Symposium on Condensed Matter Physics – SFKM 2011, Belgrade, Serbia, 18-22 April 2011.
Invited talk: **"Numerical Study Of Critical Behavior Of Two-dimensional Nonequilibrium Zero-temperature Random Field Ising Model"** (Dj. Spasojević, S. Janičević, M. Knežević)
- Workshop on **"Avalanches and intermittency in out-of-equilibrium systems"**, Courmayeur, Italy, January 20-22, 2014.
Invited talk: **"On extreme events in two-dimensional nonequilibrium zero-temperature random field Ising model"** (Dj. Spasojević, S. Janičević)
- The COMP Centre of Excellence Scientific Advisory Board Meeting, Aalto University, 15-16 May 2014.
Poster: **"Dislocation avalanches in the constant stress ensemble"** (S. Janičević, M. Ovaska, M. Alava and L. Laurson)
- COMP full-day seminar 24. Feb 2015, Hanasaari, Helsinki
Poster: **"Avalanches in 2D Dislocation Systems Without Applied Stresses"** (S. Janičević, M. Ovaska, M. Alava and L. Laurson)
- Workshop on **"Avalanche shapes"**, Courmayeur, Italy, March 2-4, 2015.
Invited talk: **"Avalanches in Two-dimensional Dislocation Systems Without Applied Stresses"** (S. Janičević, M. Ovaska, M. Alava and L. Laurson)
- **STATPHYS26**, Lyon, France, 18-22 July 2016.
Invited talk: **"Bursty crystal plasticity: from jamming to pinning"** (L. Laurson, A. Lehtinen, M. Ovaska, S. Janičević, G. Costantini, S. Zapperi, M. Alava)
- **STATPHYS26**, Lyon, France, 18-22 July 2016.
Invited talk: **"Silent avalanches, Omori's law and predictability"** (M. Alava, S. Janičević, L. Laurson, M. Ovaska, S. Santucci, L. Viitanen)

- Workshop on Avalanche Processes in Condensed Matter Physics and Beyond, Barcelona, Spain, 9-13 January 2017. Poster: **"Critical behavior of the two-dimensional nonequilibrium zero-temperature random field Ising model on triangular lattice. Comparison of critical exponents on triangular and quadratic lattices"** (S. Janičević, S. Mijatović, Dj. Spasojević)
- Conference **"From Solid State to Biophysics IX"**, Cavtat, Croatia, June 16-23, 2018. Invited talk: **"On the threshold-induced correlations in the Random Field Ising Model"** (S. Janičević, D. Jovković, L. Laurson, Dj. Spasojević)

EMPLOYMENT

01. 07. 2001. - 31. 08. 2001.

IAESTE exchange of students for paid on-the-job training in foreign enterprises and institutions during summer vacations, Institute for Polymer research, GmbH Borealis, Linz, Austria

01. 04. 2003. - 31. 12. 2006.

Assistant researcher on project of Ministry of Science of Republic of Serbia no: 1794. "Random processes in percolations, polymers and ferromagnetics"

01. 01. 2007. - 31. 12. 2008.

Assistant researcher on project of Ministry of Science of Republic of Serbia no: 141014 "Superconductivity, magnetism and fluctuations"

01. 01. 2009. – 01. 09. 2013.

Researcher on project of Ministry of Science of Republic of Serbia no: 171027 "Superconductivity, magnetism and fluctuations"

01. 09. 2012. – 31. 05. 2013.

Part time Secondary Science Teacher, Britannica International School of Belgrade, Cambridge IGCSE Curriculum

01. 09. 2013. – 31. 12. 2015.

Postdoctoral researcher at Aalto University, Finland, School of Science, Department of Applied Physics, Centre of Excellence in Computational Nanoscience (COMP), research group – Complex systems and materials, group leader prof. Mikko Alava.

01. 02. 2016. –

Assistant research professor on project of Ministry of Science of Republic of Serbia no: 171027 "Superconductivity, magnetism and fluctuations"

01. 02. 2019. –

Assistant with PhD degree for theoretical condensed matter physics, Institute for Physics, Faculty of Sciences, University of Kragujevac

GRANTS AND FELLOWSHIPS

- 2003-2006 Grant from Ministry of Science of Republic of Serbia for Magister studies
- 2006-2008 Grant from Ministry of Science of Republic of Serbia for Doctoral studies

AWARDS AND HONORS

- 1999. Award from University of Kragujevac for best student of Faculty of Sciences
- 2000. Award from Norway Royal Embassy for 1000 best students in Yugoslavia
- 2002. Award from Government of Republic of Serbia for best student of University of Kragujevac