

Vladimir Gligorijević

CONTACT INFORMATION

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EDUCATION

2011 – November 2012

M.Sc. in Physics

Faculty of Physics / University of Belgrade

Master student at Faculty of Physics, University of Belgrade and currently working in a *Group for Theory of Condensed Matter and Statistical Physics* at Jožef Stefan Institute, Ljubljana. M.Sc. thesis: "*Growth and Self-Organization Processes in Directed Social Network*".

2007 – October 2011

B.Sc. in Physics

Faculty of Physics / University of Belgrade

Graduated from the Faculty of Physics at the Department of Theoretical Physics, University of Belgrade with GPA = 9.90 (max 10). B.Sc. thesis: "*Self-Organized Criticality in the Activity Dynamics of Neural Networks*".

2003 – 2007

Grammar School / Smederevo

Completed Grammar School in Smederevo, Serbia. GPA = 4.8 (max 5). Awarded a special diploma for excellent results at competitions from Physics and Mathematics.

COMPUTER SKILLS

Operating Systems: Linux/Unix, MAC OS X

Programming Languages: C/C++, Python, MATLAB, Java, PHP

Analysis and visualization of complex networks: Pajek, Cytoscape, Gephi, GraphStream, Networkx

Molecular dynamics simulations: LAMMPS (Large-scale Atomic/Molecular Massively Parallel Simulator)

Applications: LaTeX, OpenOffice

RESEARCH INTERESTS

- Complex Systems: Statistical mechanics of Complex Systems, Network theory, Social Network Analysis and Modeling, Computational Neuroscience - Neural networks and modeling dynamics of brain activity
- Nonlinear dynamics and Theory of Chaos: Synchronization in coupled nonlinear dynamical systems, Chaos in electrical circuits
- Molecular dynamics simulations of ion conducting glasses

RESEARCH EXPERIENCE

2002 –2006

Petnica Science Centre

Attended seminars on physics and electronics as a student at Petnica Science Centre (PSC). Author of "Simulation of chaos in RLD circuit", a student science project carried out in PSC. The research paper was published in PSC - Selected Students' Papers.

October 2010 – December 2010

University of Technology / Ilmenau

Attended student practice at TU Ilmenau (Department of Physics II, Germany) in duration of three months. I worked on Molecular Dynamics simulations of fast ion - conducting glasses based on different potential models.

November 2011 – until present

Jozef Stefan Institute / Slovenia

Currently involved on the FP7 project: "*Collective emotions in Cyberspace*" at Jožef Stefan Institute, Slovenia, under the mentorship of Prof. Dr Bosiljka Tadić. My work includes analysis of social behaviour in large-scale data sets (with additional features - messages with emotional content, linguistic categories...) collected at different Web portals (IRC channels, Myspace): Mapping the data onto networks; Graphical representation of networks and visualization of their growth and distribution of emotional content along the links; Statistical analysis of network topology; Self-organized dynamics on networks (time series and avalanche dynamics of users activity and emotions);

AWARDS AND HONORS

- Scholarship, Jožef Stefan Institute, Slovenia (2011/2012)
- Scholarship ("*Dositeja*"), Ministry of Youth and Sport, Republic of Serbia to the 1000 best Serbian students (2010/2011, 2011/2012)
- Awarded a special diploma for excellent results in the undergraduate studies (2009/2010)
- Undergraduate scholarship from the Faculty of Physics, University of Belgrade (2009/2010)
- Scholarship, City of Smederevo, Serbia (2007-2011)

PUBLICATIONS

1. M. Šuvakov, M. Mitrović, V. Gligorijević, B. Tadić, *How the online social networks are used: Dialogs-based structure of MySpace*, *Journal Of The Royal Society, Interface*, 2012 (in print). Available from: [arXiv:1206.6588v1](https://arxiv.org/abs/1206.6588v1)
2. V. Gligorijević, M. Skowron, B. Tadić, *Structure and stability of online chat networks built on emotion-carrying links*, *Physica A: Statistical Mechanics and its Applications*, 392(2012) 538-543. Available from: [arXiv:1209.4760v1](https://arxiv.org/abs/1209.4760v1)
3. V. Gligorijević, M. Skowron, B. Tadić, *Directed Networks of Online Chats: Content-Based Linking and Social Structure*, *conference paper (SITIS 2012)* (in print)
4. V. Gligorijević, *Growth and Self-Organization Processes in Directed Social Network*, *master thesis in English*. Available from: [master thesis](#)

CONFERENCE AND PRESENTATIONS

Petnica annual conference "A step into science" - *Poster presentation*: "Simulation of chaos in RLD circuit", 2006, Belgrade, Serbia

Cyberemotions - Vienna Workshop - *Talk*: "Directed Networks of Online Chats", 18-20 January 2012, Vienna, Austria

COST Action MP0801: Physics of Competition and Conflict - *Poster presentation*: V. Gligorijević, M. Skowron, B. Tadić, "Content-based cooperation and emotion flow in online chats", 11-13 July 2012, NUI Galway, Ireland

European Conference on Complex Systems (ECCS) - *Poster presentation*: V. Gligorijević, M. Skowron, B. Tadić, "Evolving topology on the network of online chats", 3-7 September 2012, Brussels, Belgium

Cyberemotions - Berlin Workshop - *Talk*: "Persistent Networks of Online Chats", 12-14 September 2012, Berlin, Germany

OTHER ACTIVITIES

Student - assistant on Physics programme at Petnica Science Centre which includes holding lectures and presentations

PROFESSIONAL REFERENCES

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