

Hassan Bassereh Moosaabadi

Date of Birth: 19 September 1989

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Group: [Computational Neuroscience and Biomedical Engineering](#)



Education

- **Vienna University of Technology**

Ph.D

Vienna ,Austria
15.5.2016-current

- Supervisor: Frank Rattay
- Thesis: Simulation of the synaptic exocytosis of bipolar cells in the electrically stimulated retina

- **Isfahan University of Technology**

M.Sc. Physics

Isfahan,Iran
2012 –2015

- Supervisors: Vahid Salari, Farhad Shahbazi
- Thesis: Quantum Energy Transfer in the Selectivity Filter Backbone of the Ion Channels in Neurons

- **Shahrekord University**

B.S Physics

Shahrekord,Iran
2008 –2012

Research Interests

- Neuroscience
- Biophysics
- Analyzing data
- Quantum and Classical effects in Ion Channels

Skills

- Programming Languages
 - Python
 - C++
- Specialized Modules in Python
 - Qutip(Quantum Toolbox in Python)
 - NetworkX, Sympy, Numpy, Scipy, Math, Matplotlib

- Other softwares and operation systems
 - Latex
 - Microsoft office
- Operating Systems
 - Windows
 - Linux

Publications/Preprints

- V. Salari, H. Valian, H. Bassereh, I. Bkkon, A. Barkhordari.
Ultraweak Photon Emission in the Brain
[J. Integr. Neurosci. 14, 419 \(2015\)](#), [PDF](#).
- V. Salari, M. Sajadi, H. Bassereh, V. Rezania, M. Alaei, J.A. Tuszynski.
On the classical vibrational coherence of carbonyl groups in the selectivity filter backbone of the KcsA ion channel
[J. Integr. Neurosci. 14, 195 \(2015\)](#), [PDF](#).

Conference/Workshop Presentations

- Hands on Research in Complex Systems, *ICTP*, Trieste, Italy
Effect of Disorder and Noise on Excitation Energy Transfer in Quantum Complex Networks
- 4-th Iran Computational Neuroscience Workshop, August 26-29, 2014, Zanzan- Iran, IASBS.
On the Possibility of Quantum Effects in KcsA Ion Channels

Teaching Experience

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| • Optics Lab
<i>Sessional Lecturer</i> | Isfahan University of Technology
<i>2013–2014</i> |
| • Basic Physics I and II Lab
<i>Sessional Lecturer</i> | Isfahan University of Technology
<i>2012–present</i> |

References

- Vahid Salari. Assistant Professor of physics, Isfahan University of Technology, Iran
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- Farhad Shahbazi. Associate Professor of physics, Isfahan University of Technology, Iran
shahbazi@cc.iut.ac.ir
- Frank Rattay. Chair of research group of Computational Neuroscience and Biomedical Engineering, Vienna University of Technology, Austria
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