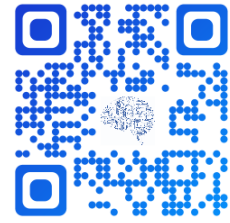


Abolfazl Alipour

PY 237, 1101 E. 10th St., Bloomington, IN, 47404



Education

- **Double Ph.D. in Neuroscience & Psychology** July 2017-Current
- **Doctor of Pharmacy** September 2010-July 2016
Shiraz University of Medical Sciences, Shiraz, Iran **GPA:3.40**

Skills and Research Interests

- **Interested in:**
Neural Coding
Models of canonical microcircuits in neocortex
Neuromorphic Hardware
- **Skilled in:**
Electrophysiology
Computational Modeling
Cognitive Neuroscience

Current Research Projects

1. **Designing Novel Echo State Network Architectures Inspired by the Structure of Canonical Microcircuits in the Neocortex** (under supervision of Prof. Tom James and Prof. John Beggs, Indiana University Bloomington, USA)
2. **Investigating the Role of Basal Ganglia in Predictive Coding Through Behavioral and EEG Assessment of Parkinsonian Patients** (under supervision of Dr. Nami, Department of Neuroscience, Shiraz University of Medical Sciences, Shiraz, Iran)
3. **Role of Microtubules in Paramecium Learning as a Test for Orchestrated Objective Reduction Theory for Consciousness** (under supervision of Prof. Hatam and Dr. Seraj, Shiraz University of Medical Sciences, Shiraz, Iran)

Professional Positions

1. **Head of The Neuroscience Research Group**, Student Research Committee, Shiraz University of Medical Sciences, Shiraz (2012- 2016)
2. **Deputy Scientific secretary**, Second Interdisciplinary Seminar on Brain and Cognition, ISBC-2 (A Student-Organized Conference) (June 2016, Shiraz, Iran)
3. **Scientific Director**, First Interdisciplinary Seminar on Neuroscience (A Student-Organized Conference) (October 2013, Shiraz, Iran)

Test Scores

- **TOEFL(iBT): 106 (R:29 L:28 S:24 W:25)**
- **GRE: Q:164 V:154 AW:3.5**

Recognitions and Awards

- **Selected among top 8 finalist teams in Cheng Wu Innovation Challenge**, Innovation & Entrepreneurship program, School of Informatics, Indiana University Bloomington (**April 2018**) <https://bit.ly/2OIXBRu>
- **Rebec Family Neuroscience Fellowship**, Department of Neuroscience, Indiana University Bloomington (**April 2017**)
- **Best Lecture Award** in Research Day Conference, Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran (**November 2013**)
- **Ranked among Top 1% (4,135 out of 500,000 Participants)** in The Iranian National University Entrance Examination. **Jun 2010**

Publications

1. **Alipour, A.**, Dorvash, M., Yeganeh, Y., Hatam, Gh. **Learning in Paramecium: New Insights and Modifications.** Journal of Parasitology Research. (in press)
2. **Alipour, A.**, Mojdehfarahbakhsh, A., Tavakolian, A., Morshedzadeh, T., Asadi, M., Mehdizadeh, A., Nami, M. **Neural Communication through Theta-Gamma Cross-frequency Coupling in a Bistable Motion Perception Task.** Journal of Integrative Neuroscience. (Accepted)
3. **Alipour, A.** (2016). **The Second Interdisciplinary Seminar on Brain and Cognition, Shiraz, Iran.** Journal of Advanced Medical Sciences and Applied Technologies, 2(2), 238-243.
4. **Alipour, A.**, & Kazemi, S. (2015). **Dominant Right Hemisphere Controls Biased Rotation Perception.** Psychology & Neuroscience, 8(4), 435.
5. **Alipour, A.** (2015). **Demystifying the Biophoton-Induced Cellular Growth: A Simple Model.** Journal of Advanced Medical Sciences and Applied Technologies, 1(2), 112-115.
6. Ostovari, M., **Alipour, A.**, Mehdizadeh, A. (2014). **Entanglement Between Bio-photons and Tubulins in Brain: Implications for Memory Storage and Information Processing.** NeuroQuantology, 12(3).
7. Movahedi, M. M., **Alipour, A.**, Mortazavi, S. A. R., Tayebi, M. (2014). **Production of a Novel Mineral-based Sun Lotion for Protecting the Skin from Biohazards of Electromagnetic Radiation in the UV Region.** Journal of Biomedical Physics & Engineering, 4(1), 9.
8. Movahedi, M. M., Mehdizadeh, A. R., **Alipour, A.** (2013). **Development of a Brain Computer Interface (BCI) Speller System Based on SSVEP Signals.** Journal of Biomedical Physics and Engineering, 3(3)

Abstracts

1. Reza Hajalizadeh, Zahra Ghahramani, **Abolfazl Alipour**. **Maximal Stimulus Induced Synchrony at the Delicate Balance between Excitation and Inhibition**. Bernstein conference 2016, Berlin, Germany. DOI: 10.12751/nncn.bc2016.0073
2. **Abolfazl Alipour**. **Automatic Sleep-Wake Transition in a Thalamocortical Network Coupled with Circadian Rhythm Centers**. Bernstein conference 2015, Heidelberg, Germany. DOI:10.12751/nncn.bc2015.0031
3. Mohammadreza Dorvash, Gholamreza Hatam, Yasaman Yeganeh, **Abolfazl Alipour**. **A Replication Study on Paramecium Learning**. Basic and Clinical Neuroscience Congress, October 2014, Tehran, Iran
4. Golnaz Yadollahi Khales, **Abolfazl Alipour**, Maryam Moosavi. **L-NAME reverses morphine-induced spatial memory consolidation impairment**. Alzheimer's and Dementia 10(4):P346-July 2014. Copenhagen, Denmark. DOI:10.1016/j.jalz.2014.05.363
5. Golnaz Yadollahi Khales, **Abolfazl Alipour**, Maryam Moosavi. **The effect of morphine on water maze memory consolidation**. Alzheimer's and Dementia 07/2013; 9(4): P154. Boston, USA. DOI:10.1016/j.jalz.2013.05.221

Patents

1. Movahedi, M. M., Mehdizadeh A. R., Alipour, A. **Eye Typing System [Brain Computer Interface (BCI) Speller System Based on SSVEP Signals]** Iran Intellectual Property Office, patent number: 79812
2. Movahedi, M. M., Alipour, A., Mortazavi, S. M.J. **Sunscreen formulation using Zeolite mineral** Iran Intellectual Property Office, patent number: 82494

Magazine Publications - Online Talks

- Alipour A. **Neuromorphic Hardware Designs: A Quick Survey**. June 23, 2014, H⁺ magazine Dec. 2018, Carboncopies Foundation <https://bit.ly/2H1YdHL>
- Alipour A. **Hardware Implementations for Brain Emulation**, Carboncopies Foundation workshop: *Transcending Biology: Reverse Engineering the Brain*, Jan 2018. <https://bit.ly/2DPuHi2>
- Alipour A. **Proposal: Dynamic Brain Switching as a Method to Maintain Consciousness During Mind Uploading**. June 23, 2014, H⁺ magazine

Relevant Courses and Workshops

- Computational Neuroscience Workshop Babol University of Technology, 4-5 May, 2016
- Computational Neuroscience Workshop Shiraz University, February 2015
- 4th computational Neuroscience workshop Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan (August 2014)
- Neural Computation workshop The Institute for Cognitive Science Studies (September-October 2013, 28 hours)
- Summer school in cognitive sciences IPM, Cognitive School, September 2013
- Complex and adaptive dynamical systems Shiraz University, Dr. Montakhab, (2014) (attendance only)
- Mathematics II (Multivariable calculus) Maktabkhooneh.org (MOOC; Sharif University)
- Single variable calculus Coursera (No certificate)

Skills and Qualifications

- **Language:**
Farsi (Mother Tongue), English (Professional Working Proficiency), Arabic (Minimum Professional Proficiency), Russian (Elementary Proficiency)
- **Software and Computer:**
Linux user
MATLAB (Intermediate proficiency level)
Python (Intermediate proficiency level)
- **Neuroscience related skills:**
PyTorch
Optogenetic stimulation in rodents
High-channel Count Recording in Anesthetized Rodents
EEG recording
NEURON simulation environment (Intermediate proficiency level)
NEST Simulator (Intermediate proficiency level)
EEGLAB toolbox (Intermediate proficiency level)
Psychophysics
Morris Water Maze
Animal neurosurgical procedures (Hippocampal Dissection)
Animal handling
- **Sport:**
Wrestling & kickboxing. Gold medal of 1st south provinces O-sport (Sep. 2012), Silver medal of provincial O-sport (Sep. 2011) Bronze medal of national O-sport competition (Feb. 2008)

References

- **Thomas James**, PhD. Professor,
Department of Psychological and Brain Sciences
Indiana University Bloomington, USA
thwjames@indiana.edu
- **John Beggs**, PhD. Associate professor,
Department of Physics and Program in Neuroscience
Indiana University Bloomington, USA
jmbeggs@indiana.edu
- **Olaf Sporns**, PhD. Distinguished Professor,
Psychological and Brain Sciences
Indiana University Bloomington, USA
osporns@indiana.edu
- **Mohammad Nami**, MD, PhD. Assistant Professor of
Neuroscience
Shiraz University of Medical Sciences, Iran
torabinami@sums.ac.ir