

# Amir-Homayoun Javadi

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## Focus of Research

Cognitive enhancement for healthy ageing, more efficient rehabilitation of brain-damaged patients (such as stroke and dementia) and helping with mental health disorders. I use physical exercise, brain stimulation (electrical & magnetic), music, sleep, brain imaging (EEG, MEG & fMRI), eye-tracking, virtual reality and computational modelling to investigate the neurocognitive basis of memory, learning, and decision making.

**h-index:** 15, **i10-index:** 16 (Google Scholar, extracted 01-05-2019)

## Current Positions

- **Senior Lecturer (Associate Professor) in Cognitive Neuroscience**

Jun. 2018 – present                      University of Kent                      UK  
– School of Psychology

- **Honorary Research Associate**

Dec. 2015 – present                      University College London                      UK  
– Institute of Behavioural Neuroscience

- **Visiting Professor**

Aug. 2017 – present                      Tehran University of Medical Sciences                      Iran  
– School of Rehabilitation

## Previous Positions

- **Lecturer (Assistant Professor) in Cognitive Neuroscience**

Dec. 2015 – Jun. 2018                      University of Kent                      UK  
– School of Psychology

- **Postdoctoral Researcher**

Mar. 2013 – Nov. 2015                      University College London                      UK  
– Institute of Behavioural Neuroscience; Supervisor: Dr Hugo J. Spiers

- **Postdoctoral Researcher**

Mar. 2011 – Feb. 2013                      Technische Universität Dresden                      Germany  
– Section of Systems Neuroscience; Supervisor: Prof Michael N. Smolka

- **Postdoctoral Researcher**

Sep. 2010 – Feb. 2011                      Humboldt University                      Germany  
– Berlin School of Mind and Brain; Supervisor: Prof Niko Busch

- **Part-time Lecturer**

Jun. 2007 – May 2008                      Rah-e-Roshd Educational Complex                      Iran  
– Head of the simulation lab

- **Part-time Lecturer**

Sep. 2006 – Sep. 2008                      Payam-e-Noor University                      Iran  
– Lecturer in Computer Engineering and Mathematics Departments.

- **Research Engineer**

Aug. 2005 – Sep. 2008                      National Olympic and Paralympic Academy                      Iran  
– Researcher and developer in Sports Engineering Department

## Education

- **Fellow of the Higher Education Academy**  
Dec. 2015 – Jun. 2018                      University of Kent                      UK
- **PhD in Cognitive Neuroscience**  
Sep. 2008 – Mar. 2011                      University College London (UCL)                      UK
  - Postgraduate programme, Institute of Cognitive Neuroscience (ICN)
  - Project: “Memory modulation through sleep, wakefulness and brain stimulation”
  - Supervisor: Prof Vincent Walsh
- **MSc in Mechatronics Engineering**  
Sep. 2003 – Aug. 2006                      Azad University of Qazvin                      Iran
  - Graduate programme in Mechatronics Engineering
  - Project: “3D virtual heart modelling”
  - Supervisor: Dr Ahmed-Reza Arshi
- **BSc in Electrical and Electronics Engineering**  
Sep. 1998 – Aug. 2004                      Azad University of Qazvin                      Iran
  - Undergraduate programme in Electronics Engineering
  - Project: “Speaker recognition”
  - Supervisor: Dr Ali Shah-hosseini

## Research Activities

### Under Review

\* These authors contributed equally.

1. Crowley, R., & **Javadi, A.-H.** (2019) The modulatory effect of oscillatory reinstatement during slow-wave sleep on declarative memory consolidation. PsyArXiv. doi: [10.31219/osf.io/8yxge](https://doi.org/10.31219/osf.io/8yxge)
2. Pyke, W.\*, Ifram, F.\*, Coventry, L., Sung, Y., Champion, I., & **Javadi, A.-H.** (2019). The effects of different protocols of physical exercise and rest on long-term memory. OSF Preprint, 1–17. doi: [10.31219/osf.io/ckvdf](https://doi.org/10.31219/osf.io/ckvdf)
3. Salehi, M., Pyke, W., Mohammadzadeh, H., Nazari, M. A., & **Javadi, A.-H.** (2019). Neurofeedback and Motor Imagery are as good as physical training on Dart Throwing. Psyarxiv Preprints. doi: [10.31234/osf.io/aqnvu](https://doi.org/10.31234/osf.io/aqnvu)

### Journal Publications

\* These authors contributed equally.

1. Crowley, R., Bendor, D., & **Javadi, A.-H.** (in press) A review of neurobiological factors underlying the selective enhancement of memory at encoding, consolidation, and retrieval. *Progress in Neurobiology*
2. **Javadi, A.-H.**\*, Patai, E. Z.\*, Marin-Garcia, E., Margolis, A., Tan, H.-R. M., Kumaran, D., ... Spiers, H. J. (accepted). Prefrontal Dynamics Associated with Efficient Detours and Shortcuts: A Combined Functional Magnetic Resonance Imaging and Magnetoencephalography Study. *Journal of Cognitive Neuroscience*, 1–21. doi: [10.1162/jocn\\_a\\_01414](https://doi.org/10.1162/jocn_a_01414)
3. Patai, E. Z.\*, **Javadi, A.-H.**\*, Ozubko, J. D., Callaghan, A. O., Ji, S., Robin, J., ... Spiers, H. J. (in press). Hippocampal and Retrosplenial Goal Distance Coding After Long-term Consolidation of a Real-World Environment. *Cerebral Cortex*, 1–11. doi: [10.1093/cercor/bhz044](https://doi.org/10.1093/cercor/bhz044)
4. Brunec, I., Robin, J., Patai, E. Z., Ozubko, J.D., **Javadi, A.-H.**, ..., Moscovitch, M. (accepted) Cognitive mapping style relates to posterior-anterior hippocampal volume ratio, *Hippocampus*. doi: [10.1002/hipo.23072](https://doi.org/10.1002/hipo.23072)
5. Kortteenniemi, A., Lehto, S. M., & **Javadi, A.-H.** (2019) Delayed, distant skin lesions after transcranial direct current stimulation. *Brain Stimulation*. 12, 204-206. doi: [10.1016/j.brs.2018.10.018](https://doi.org/10.1016/j.brs.2018.10.018)
6. **Javadi, A.-H.**\*, Patai, E. Z.\*, Margois, A., Tan, H.-R., Kumaran, D., Nardini, M., ... Spiers, H. J. (2018). Neural signatures of detours, shortcuts and back-tracking during navigation. *BioRxiv*. doi: [10.1101/362319](https://doi.org/10.1101/362319) (see Javadi, Patai, et al. 2019 for the published version)

7. **Javadi, A.-H.\***, Patai, E. Z.\*, Margois, A., Tan, H.-R., Kumaran, D., Nardini, M., ... Spiers, H. J. (2018). Spotting the path that leads nowhere: Modulation of human theta and alpha oscillations induced by trajectory changes during navigation. *BioRxiv*. doi: [10.1101/301697](https://doi.org/10.1101/301697)
8. Nejati, V., Salehinejad, M.A., Nitsche, M.A., Najian, A., & **Javadi, A.-H.**, (2018) Transcranial Direct Current Stimulation Improves Executive Dysfunctions in ADHD: Implications for Inhibitory Control, Interference Control, Working Memory, and Cognitive Flexibility. *Journal of Attention Disorders*. doi: [10.1177/1087054717730611](https://doi.org/10.1177/1087054717730611)
9. Crowley, R., Bendor, D., & **Javadi, A.-H.** (2018) A review of neurobiological factors underlying the selective enhancement of memory at encoding, consolidation, and retrieval. *PsyArXiv*. doi: [10.31234/osf.io/f2e4g](https://doi.org/10.31234/osf.io/f2e4g) (see Crowley et al. 2019 for the published version)
10. Stimpson, N. J., Davison, G., & **Javadi, A.-H.** (2018). Joggin' the Noggin: Towards a Physiological Understanding of Exercise-Induced Cognitive Benefits. *Neuroscience & Biobehavioral Reviews*, 88(March), 177–186. doi:[10.1016/j.neubiorev.2018.03.018](https://doi.org/10.1016/j.neubiorev.2018.03.018)
11. Patai, E. Z.\* , **Javadi, A.-H.\*** , Ozubko, J. D., O'Callaghan, A., Ji, S., Robin, J., ... Spiers, H. J. (2017). Long-term consolidation switches goal proximity coding from hippocampus to retrosplenial cortex. *BioRxiv*, 167882. doi: [10.1101/167882](https://doi.org/10.1101/167882) (see Patai, Javadi, et al. 2019 for the published version)
12. Bernardoni, F., Geisler, D., King, J. A., **Javadi, A.-H.**, Ritschel, F., Murr, J., ... Ehrlich, S. (2017). Altered Medial Frontal Feedback Learning Signals in Anorexia Nervosa. *Biological Psychiatry*, 83(3), 235–243. doi:[10.1016/j.biopsych.2017.07.024](https://doi.org/10.1016/j.biopsych.2017.07.024)
13. Kortteenniemi, A., **Javadi, A.-H.**, Wikgren, J., & Lehto, S. M. (2017). Progression of adverse effects over consecutive sessions of transcranial direct current stimulation. *Clinical Neurophysiology*, 128(17), 2397–2399. doi:[10.1016/j.clinph.2017.09.112](https://doi.org/10.1016/j.clinph.2017.09.112)
14. Jünger, E., **Javadi, A.-H.**, Wiers, C. E., Sommer, C., Garbusow, M., Bernhardt, N., ... Zimmermann, U. S. (2017). Acute alcohol effects on explicit and implicit motivation to drink alcohol in socially drinking adolescents. *Journal of Psychopharmacology*, 31(7), 26988111769145. doi:[10.1177/0269881117691454](https://doi.org/10.1177/0269881117691454)
15. Farahani, J., **Javadi, A.-H.**, O'Neil, B., & Walsh, V. (2017) Effectiveness of above real-time training on decision-making in elite football: A dose–response investigation. *Progress in Brain Research*, (Vol. 234, pp. 101–116). doi: [10.1016/bs.pbr.2017.08.007](https://doi.org/10.1016/bs.pbr.2017.08.007)
16. **Javadi, A.-H.**, Glen, J. C., Halkiopoulos, S., Schulz, M., & Spiers, H. J. (2017). Oscillatory Reinstatement Enhances Declarative Memory. *The Journal of Neuroscience*, 37(41), 265–17. doi:[10.1523/jneurosci.0265-17.2017](https://doi.org/10.1523/jneurosci.0265-17.2017)
17. Mutz, J. , & **Javadi, A.-H.** (2017). Exploring the neural correlates of dream phenomenology and altered states of consciousness during sleep. *Neuroscience of Consciousness*, 3(1). doi:[10.1093/nc/nix009](https://doi.org/10.1093/nc/nix009)
18. Brunec, I. K., **Javadi, A.-H.**, Zisch, F. E. L., & Spiers, H. J. (2017). Contracted time and expanded space: The impact of circumnavigation on judgements of space and time. *Cognition*, 166, 425–432. doi:[10.1016/j.cognition.2017.06.004](https://doi.org/10.1016/j.cognition.2017.06.004)
19. **Javadi, A.-H.\***, Emo, B.\* , Howard, L. R., Zisch, F. E., Yu, Y., Knight, R., ... Spiers, H. J. (2017). Hippocampal and prefrontal processing of network topology to simulate the future. *Nature Communications*, 8, 14652. doi:[10.1038/ncomms14652](https://doi.org/10.1038/ncomms14652)
20. Dormal, V., **Javadi, A.-H.**, Andres, M., Pesenti, M., Walsh, V., & Cappelletti, M., (2016) Enhancing duration processing with parietal brain stimulation, *Neuropsychologia*, 85, 272-277, doi: [10.1016/j.neuropsychologia.2016.03.033](https://doi.org/10.1016/j.neuropsychologia.2016.03.033)
21. **Javadi, A.-H.**, Tolat, A., & Spiers, H. J. (2015) Sleep enhances a spatially-mediated generalisation of learned value. *Learning & Memory*, 22(10): 532-536. doi: [10.1101/lm.038828.115](https://doi.org/10.1101/lm.038828.115)
22. **Javadi, A.-H.**, Beyko, A., Walsh, V., & Kanai, R. (2015). Transcranial direct current stimulation of the motor cortex biases action choice in a perceptual decision task. *Journal of Cognitive Neuroscience*, 27: 2174-2185. doi:[10.1162/jocn\\_a\\_00848](https://doi.org/10.1162/jocn_a_00848)

23. **Javadi, A.-H.** (2015). Modulation of the pre-supplementary motor area reduces sense of agency (Commentary on Cavazzana et al.). *European Journal of Neuroscience*. 42(3): 1887-1888, doi: [10.1111/ejn.12954](https://doi.org/10.1111/ejn.12954)
24. Schaal, N., **Javadi, A.-H.**, Halpern, A., Pollok, B., Banissy, M., (2015) Right parietal cortex mediates memory for melodies: A tDCS study. *European Journal of Neuroscience*. 42(1): 1660-1666. doi: [10.1111/ejn.12943](https://doi.org/10.1111/ejn.12943)
25. **Javadi, A.-H.**, Spiers, H. J. (2015). Dispatch; Neuroscience: Teleporting Mind into Body and Space. *Current Biology*. 25(11): R448-R450. doi: [10.1016/j.cub.2015.04.010](https://doi.org/10.1016/j.cub.2015.04.010)
26. **Javadi, A.-H.**, Hakimi, Z., Barati, M., Walsh, V., & Tcheang, L. (2015). SET: a pupil detection method using sinusoidal approximation. *Frontiers in Neuroengineering*. 8:4. doi: [10.3389/fneng.2015.00004](https://doi.org/10.3389/fneng.2015.00004)
27. Brunec, I. K., Chadwick, M., **Javadi, A.-H.**, Guo, L., Malcolm, C., & Spiers, H. J., (2015) Chronologically organised structure in autobiographical memory search. *Frontiers in Psychology*, 6:338. doi: [10.3389/fpsyg.2015.00338](https://doi.org/10.3389/fpsyg.2015.00338)
28. Schad, D. \*, Jünger, E. \*, Sebold, M., Garbusow, **Javadi, A.-H.**, et al. (2014). Smart goals, slow habits? Individual differences in processing speed and working memory capacity moderate the balance between habitual and goal-directed choice behaviour. *Frontiers in Psychology*. 5:1450, doi: [10.3389/fpsyg.2014.01450](https://doi.org/10.3389/fpsyg.2014.01450)
29. **Javadi, A.-H.** \*, Schmidt, D. \*, & Smolka, M. N. (2014). Adolescents adapt more slowly than adults to varying reward contingencies. *Journal of Cognitive Neuroscience*, 26(12): 2670-2681. doi: [10.1162/jocn\\_a\\_00677](https://doi.org/10.1162/jocn_a_00677)
30. **Javadi, A.-H.**, Brunec, I. K., Walsh, V., Penny, W. D. & Spiers, H. J., (2014). Transcranial electrical brain stimulation modulates neuronal tuning curves in perception of numerosity and duration, *NeuroImage*, 102, 451–457. doi:[10.1016/j.neuroimage.2014.08.016](https://doi.org/10.1016/j.neuroimage.2014.08.016)
31. Howard, L. R., **Javadi, A.-H.**, Yu, Y., Mill, R. D., Morrison, L. C., Knight, R., . . . Spiers, H. J. (2014). The hippocampus and entorhinal cortex encode the path and Euclidean distances to goals during navigation. *Current Biology*, 24, 1331-1340. doi: [10.1016/j.cub.2014.05.001](https://doi.org/10.1016/j.cub.2014.05.001)
32. **Javadi, A.-H.** \*, Schmidt, D. \*, & Smolka, M. N. (2014). Differential representation of feedback and decision in adolescents and adults. *Neuropsychologia*, 56, 280–8. doi:[10.1016/j.neuropsychologia.2014.01.021](https://doi.org/10.1016/j.neuropsychologia.2014.01.021)
33. Herbst, S., **Javadi, A.-H.**, van der Meer, E., & Busch, N.A., (2013) How long depends on how fast – perceived flicker frequencies dilate subjective duration. *PLOS ONE*, 8(10): e76074. doi:[10.1371/journal.pone.0076074](https://doi.org/10.1371/journal.pone.0076074)
34. Ditye, T., **Javadi, A.-H.**, Carbon, C.C., & Walsh, V., (2013), Sleep facilitates long-term face adaptation. *Proceedings of the Royal Society B: Biological Sciences*, 280(1769), 20131698. doi: [10.1098/rspb.2013.1698](https://doi.org/10.1098/rspb.2013.1698)
35. Wiers, C.E., Kühn, S., **Javadi, A.-H.**, . . . , Bermpohl, F. (2013), Automatic approach bias towards smoking cues prevails in heavy smokers but vanishes in ex-smokers. *Psychopharmacology*, 229(1), 187-197. doi: [10.1007/s00213-013-3098-5](https://doi.org/10.1007/s00213-013-3098-5)
36. Barati, M., Hakimi, Z., & **Javadi, A.-H.** (2013). A flow based horizontal scan detection using genetic algorithm approach. *Life Science Journal*, 10(8s), 331-335.
37. Hakimi, Z., Barati, M., & **Javadi, A.-H.** (2013). A distributed intrusion detection system using cooperative agents. *Life Science Journal*, 10(8s), 253-257.
38. **Javadi, A.-H.**, & Cheng, P. (2013). Transcranial direct current stimulation (tDCS) enhances reconsolidation of long-term memory. *Brain Stimulation*, 6(4), 668-674. doi: [10.1016/j.brs.2012.10.007](https://doi.org/10.1016/j.brs.2012.10.007)
39. **Javadi, A.-H.**, & Aichelburg, C. (2013) Training enhances the interference of numerosity on duration judgement, *PLOS ONE* 8(1): e54098. doi: [10.1371/journal.pone.0054098](https://doi.org/10.1371/journal.pone.0054098)

40. **Javadi, A.-H.**, & Wee, N. (2012) Objects can produce gender adaptation aftereffects in gender perception from face. *PLOS ONE* 7(9): e46079. doi: [10.1371/journal.pone.0046079](https://doi.org/10.1371/journal.pone.0046079)
41. **Javadi, A.-H.**, Cheng, P., & Walsh, V. (2012) Short duration transcranial direct current stimulation (tDCS) modulates verbal memory. *Brain Stimulation*. 5, 468-474, doi: [10.1016/j.brs.2011.08.003](https://doi.org/10.1016/j.brs.2011.08.003)
42. **Javadi, A.-H.**, & Aichelburg, C. (2012) When time and numerosity interfere: the longer the more, and the more the longer. *PLOS ONE*, 7(7): e41496. doi: [10.1371/journal.pone.0041496](https://doi.org/10.1371/journal.pone.0041496)
43. **Javadi, A.-H.**, & Walsh, V. (2012) Transcranial direct current stimulation applied over left dorsolateral prefrontal cortex modulates declarative verbal memory. *Brain Stimulation*. 5, 231-241. doi: [10.1016/j.brs.2011.06.007](https://doi.org/10.1016/j.brs.2011.06.007)
44. **Javadi, A.-H.**, & Walsh, V., Lewis, P.A. (2011) Offline consolidation of procedural skill learning is enhanced by negative emotional content. *Experimental Brain Research*, 208(4), 507-518. doi: [10.1007/s00221-010-2497-7](https://doi.org/10.1007/s00221-010-2497-7)
45. **Javadi, A.-H.**, & Mojabi, P. (2005) Introducing Climax: A novel strategy to a tri-wheel spiral robot. *Robotics and Autonomous Systems*, 51(4), 297-310, doi: [10.1016/j.robot.2004.05.007](https://doi.org/10.1016/j.robot.2004.05.007)
46. **Javadi, A.-H.**, & Mojabi, P. (2004) Introducing Glory: A novel strategy for an omnidirectional spherical rolling robot. *Journal of Dynamic Systems, Measurement, and Control*, 126(3), 678-684, doi: [10.1115/1.1789542](https://doi.org/10.1115/1.1789542)

## Conference Presentations

1. Maher, A., Absolon, S., & **Javadi, A.-H.** (2019) music impairs learning in introverts but not extraverts, *poster presentation at Memory Malleability over Time, University of Kent, Canterbury, UK*
2. Absolon, S., Carlin, L., Svenden, R., & **Javadi, A.-H.** (2019) effect of lyrics on introverts and extroverts in memory performance, *poster presentation at Memory Malleability over Time, University of Kent, Canterbury, UK*
3. Pyke, W., Ifram, F., Coventry, L., Sung, Y., Champion, I., & **Javadi, A.-H.** (2019) the effects of different protocols of exercise and rest on memory, *poster presentation at Memory Malleability over Time, University of Kent, Canterbury, UK*
4. Ifram, F., Pyke, W., Osei-Abrokwah, D., & **Javadi, A.-H.** (2019) physical exercise and brain stimulation alone enhance long-term memory but their combination does not, *poster presentation at Memory Malleability over Time, University of Kent, Canterbury, UK*
5. Ifram, F., Osei-Abrokwah, D., & **Javadi, A.-H.** (2018) Enhancing long-term memory using physical exercise and brain stimulation, *poster presentation British Association for Cognitive Neuroscience conference (BACN Conference 2018), Glasgow, UK*
6. Kortteenniemi, A., Varheenmaa, M., Brem, A.-K., **Javadi, A.-H.**, Wikgren, J., & Lehto, S. M. (2017). The effects of sleep on the intensity of skin reactions induced by transcranial electrical stimulation, *poster presentation at 26th European Congress of Psychiatry (EPA2018), Nice, France*
7. Ifram, F., Coventry, L., & **Javadi, A.-H.** (2017) A short bout of exercise enhances long-term memory, *poster presentation at the University of 3<sup>rd</sup> Age Annual Conference, Canterbury, UK*
8. **Javadi, A.-H.**, & S. Yoo (2017) Electrical brain stimulation enhances transfer of skills, *Poster presentation at the 2<sup>nd</sup> International Brain Stimulation Conference, Barcelona, Spain*
9. **Javadi, A.-H.**, Purnell, S., Schaal, N., Banissy, M., & Halpern, A.R. (2017) Electrical brain stimulation during encoding improves musical memory. *Poster presentation at the 2<sup>nd</sup> International Brain Stimulation Conference, Barcelona, Spain*
10. Spiers, H. J., & **Javadi, A.-H.** (2016) Sleep enhances a spatially mediated generalization of learned values. *Oral presentation at the International Conference on Memory, Budapest, Hungary*

11. **Javadi, A.-H.**, Ifram, F., & Boccara, L. (2016) Neural correlate of memory improvement during physical exercise. *Poster presented at the International Conference on Memory*, Budapest, Hungary
12. **Javadi, A.-H.**, Ifram, F., & Boccara, L. (2016) Theta band activity during physical exercise correlates with memory improvement, *Oral presentation at the experimental psychology society (EPS) Meeting*, Durham, UK.
13. **Javadi, A.-H.**, & Assassi, Z. (2016) Investigating the role of parietal and prefrontal cortices in spatial working memory using tDCS, *Poster presented at the 6th International Conference on Transcranial Brain Stimulation*, Göttingen, Germany.
14. **Javadi, A.-H.**, Emo, B., Howard, et al., & Spiers, H. J. (2015) The human hippocampus represents the topological structure of the environment during navigation. *Poster presented at the British Neuroscience Association 2015*, 23: 374, Edinburgh, UK.
15. **Javadi, A.-H.**, Glen, J. C., Halkiopoulos, S., Schulz, M., & Spiers, H. J. (2015) Transcranial alternating current stimulation can improve declarative memory. *Poster presented at the British Neuroscience Association 2015*, 23: 702, Edinburgh, UK.
16. **Javadi, A.-H.**, Beyko, A., & Walsh, V. (2015) Event-related electrical stimulation of motor cortices enhances performance in a hand-tapping task. *Poster presented at the 1st International Brain Stimulation Conference, Singapore, Brain Stimulation*, 8(2), 389. doi: 10.1016/j.brs.2015.01.244
17. Schaal, N., **Javadi, A.-H.**, Halpern, A., Pollok, B., Banissy, M., (2014) Right parietal cortex mediates memory for melodies: A tDCS study. *Poster presented at the Annual Meeting of the Psychonomic Society*, California, USA.
18. Emo, B., Pinelo Silva, J., **Javadi, A.-H.**, Howard, L. R., Yu, Y., Mill, R., ... Spiers, H. J. (2014). How spatial properties of a city street network influence brain activity during navigation. *Poster presented at the Spatial Cognition 2014*, Bremen, Germany.
19. Mavros, P., **Javadi, A.-H.**, Merchant, F., Zisch, D., Zisch, F., & Spiers, H. J. (2014). A mobile application to record synchronised behavioural and EEG data during real-world wayfinding. *Poster presented at the Spatial Cognition 2014*, Bremen, Germany.
20. Tolat, A., **Javadi, A.-H.**, & Spiers, H. J. (2014). Sleep suppresses the memory consolidation of lower-valued items in competition with higher-valued items. *Poster presented at the 9th FENS forum of neuroscience 2014*, Milan, Italy.
21. **Javadi, A.-H.**, Winkler, I., & Maiche, A. (2014). Half and half is less than one-eighth and seven-eighth: asymmetry affects judgement of numerosity. *International Conference on Timing and Time Perception*, Corfu, Greece, *Procedia - Social and Behavioral Sciences*, 126, 275-277. doi: 10.1016/j.sbspro.2014.02.408
22. Dormal, V., **Javadi, A.-H.**, Cappelletti, M., Pesenti, M., & Walsh, V. (2013). Enhancing time discrimination with right parietal transcranial Random Noise Stimulation (tRNS). *Poster presented the 1st tDCS forum*, Louvain-la-Neuve, Belgium.
23. Stewart, L. H., Brewin, C. R., Muggleton, N., **Javadi, A.-H.**, & Tcheang, L. (2013). Hypervigilance without Threat: Eye-Movements Reveal Vigilant Behaviours. *Poster presented at the Resilience after Trauma: From Surviving to Thriving, Poster presented at the International Society for Traumatic Stress Studies (ISTSS) 29th Annual Meeting*, Philadelphia, Pennsylvania, USA.
24. **Javadi, A.-H.**, Yang, J., Bellesi, G., Lewis, P. A., & Walsh, V. (2010). Association between fingers and images enhances the consolidation of procedural memory in serial reaction time task. *Oral presentation at the Training in sleep research and sleep medicine*, Germany.
25. **Javadi, A.-H.**, & Walsh, V. (2009). Memory consolidation of semantically related and unrelated word pair memorisation including emotion. *Poster presented at the Sleep 2009*, 23rd annual meeting of the associated professional sleep societies, Seattle, USA.



26. **Javadi, A.-H.** (2008). Simultaneous Motion Planning and Errorless Trajectory Tracking for Redundant Manipulators using Improved GA through Model Alteration. *Poster presented at the 10th International Conference on Control, Automation, Robotics and Vision, ICARCV08, Vietnam.*
27. **Javadi, A.-H., & Eftekhari, A.M.** (2008). Biologically Inspired Orientation Recovery from Shaded Pictures, *Poster presented at the 10th International Conference on Control, Automation, Robotics and Vision, ICARCV08, December, Vietnam.*
28. **Javadi, A.-H.** (2008). Manipulation redundancy reduction as a tool for reinforcing motion planning using genetic algorithms. *Poster presented at the World Congress on Engineering, London, UK.*
29. **Javadi, A.-H., Arshi, A. R., Shirzad, E., & Moeinzadeh, M.** (2007). A genetic algorithm approach to singularity avoidance in the analysis of weight lifting performance. *Poster presented at the Annual conference of American society of biomechanics, Stanford University, USA.*
30. **Javadi, A.-H., Arshi, A. R., & Shirzad, E.** (2007), Snatch Technique Validation Using Computational Methods: A Genetic Algorithm Approach, *Poster presented at the International Symposium for Biomechanics in Sports, ISBS07, Brazil.*
31. **Javadi, A.-H., & Mojabi, P.** (2003) A new approach to decentralized conflict resolution utilizing GA in evolutionary multi-agent systems, *Poster presented at the IEEE International Conference on Robotics and Automation, ICRA03, Taiwan.*
32. **Nadji Tehrani, M., & Javadi, A.-H.,** (2003) Optimisation of steel bridge design using Genetic Algorithms. *Oral presentation at the 2nd Iranian congress on Civil Engineering, Tehran, Iran.*
33. **Javadi, A.-H., & Mojabi, P.** (2002) Introducing August: a novel strategy for an omnidirectional rolling robot, *Poster presented at the IEEE Int. Conf. on Robotics and Automation, ICRA02, USA.*
34. **Javadi, A.-H., Mojabi, P., Chitsazan, M., & Delnavaz, A.,** (2002) Introducing Glory: A Novel Approach to An Omnidirectional Rolling Robot, *Poster presented at the 21<sup>st</sup> Int. Southerneastern Conference on Theoretical and Applied Mechanics, SECTAM XXI, USA, 2002.*

## Invited Lectures

1. *Intrinsic oscillatory reinstatement following memory recall*, Memory Malleability over Time, School of Psychology, University of Kent, UK, January, 2019.
2. *An Introduction to Electrical Brain Stimulation – Research and Practice*, School of Psychology, Chemnitz University, Chemnitz, Germany, October, 2018.
3. *The modulatory effect of oscillatory reinstatement on memory*, School of Psychology, Chemnitz University, Chemnitz, Germany, October, 2018.
4. *Application of neuropsychology methods in exercise sciences*, School of Exercise Sciences, Kharazmi University, Tehran, Iran, January, 2018.
5. *Neurocognitive mechanism and enhancement of memory and language*, School of Rehabilitation, Tehran University of Medical Sciences, Tehran, Iran, December, 2017.
6. *Cognitive Enhancement using Brain Stimulation and Physical Exercise*, Kingston University, Surrey, UK, November, 2017.
7. *Exercise your heart - boost your brain*, University of 3<sup>rd</sup> Age Annual Conference, University of Kent, May, 2017.
8. *Long-term memory – modulating consolidation*, Think Kent, University of Kent, Canterbury, April, 2017.
9. *In the pursuit of super human*, A Pint of Science, Canterbury, UK, October, 2016.
10. *Theta band activity during physical exercise correlates with memory improvement*, Department of Experimental Psychology, Imperial College, London, UK, May, 2016.
11. *Neural Correlate of Physical Exercise and Cognitive Enhancement*, School of Sport & Exercise Sciences, University of Kent, Medway, UK, May, 2016.  
*Cognitive Enhancement using Physical Exercise*, Human Performance Lab, GSK, London, UK, April, 2016.

12. *Time Perception, Crucial and Susceptible*, 5th Iberian Conference on Perception, CIP 2013, Santa Cruz, Spain, June, 2013.
13. *Cognitive enhancement by transcranial direct current stimulation (tDCS)*, Mensa Annual Meeting, Münster, Germany, April, 2013.
14. *Modulation of interaction of magnitudes in different dimensions using electrical brain stimulation*, Technical University of Chemnitz, Germany, December, 2012.
15. *Memory modulation using electrical brain stimulation*, 1st International Symposium on Memory Enhancement, Max Planck Institute of Psychiatry, Munich, Germany, April, 2012.
16. *Transcranial direct current stimulation applied over left dorsolateral prefrontal cortex during encoding or retrieval modulates episodic verbal memory*, Utrecht University, Utrecht, The Netherlands, August, 2010.

## Others

### Membership

- Experimental Psychology Society (EPS) (2016-present)
- British Neuroscience Association (BNA) (2014-present)
- Federation of European Neuroscience Societies (FENS) (2009-present)

### Ad-hoc Reviewer

- *Journals (selected ones)*  
Science, Nature Human Behaviour, Scientific Reports, New England Journal of Medicine, PNAS, NeuroImage, Brain Stimulation, Cerebral Cortex, Cortex, Journal of Cognitive Neuroscience, European Journal of Neuroscience, European Journal of Neurology, Developmental Science, Clinical Neurophysiology, PLOS ONE, IEEE Transactions on Biomedical Engineering, Expert Review of Medical Devices
- *Grants*  
Wellcome Trust, Israel Science Foundation (ISF), Action Medical Research, French National Research Agency (ANR)

### Grants and Awards

1. Two-week research visit to Chemnitz University, Chemnitz, Germany, October 2018, €1,130
2. Faculty of social sciences research fund, University of Kent, October 2016, £4,830
3. Faculty learning & teaching enhancement fund application form, University of Kent, September 2016, £2,317
4. School of Psychology Research Seed Fund, University of Kent, June 2016, £1,950
5. Graduate School Research Project Fund, UCL, 2014, £1,000
6. Summer School Fund, programme of European neuroscience schools (PENS) Sleep School Program, Italy, Switzerland and Germany, 2009-2010, ~ €5,000

### Public Engagement

1. *Gulbenkian Theatre* - panel discussion - Sleep and parasomnia; Kent, UK, October 2018.
2. *Pint of Science Festival* - This conversation is electric: Comprehension of speech and language; Rochester, UK, May 2018
3. *Pint of Science Festival* - Mending the Mind with Music; Tonbridge, UK, May 2018
4. *BBC Radio* – Interview – Kent, UK, June 2017.
5. *Channel 4* – How to get fit fast, TV Documentary, UK, August 2017.
6. *BBC Radio* – Interview – London, UK, March 2017.
7. *BBC Farsi* – 1-hour debate on Sleep and Dreaming, London, UK, 2015
8. *Widening participation*; supervised six A-level students for two, four and six weeks, University College London, London, UK, 2013-2014
9. *Night of Science*; Technische Universität Dresden, Dresden, Germany, 2012
10. *Night of Science*; School of Mind and Brain, Berlin, Germany, 2011



