

**CURRICULUM VITAE****1. Personal Details**

Permanent Home Address: 10/11 Paldi St., Rehovot 76248

Home Telephone Number: 08-946356

Office Telephone Number: 03-5026623

Cellular Phone: 052-4747324

Electronic Address: ronens@hit.ac.il

**2. Higher Education****A. Undergraduate and Graduate Studies**

<b>Period of Study</b>	<b>Name of Institution and Department</b>	<b>Degree</b>	<b>Year of Approval of Degree</b>
2000-2005	Weizmann Institute of Science, Department of Neurobiology and the Department of Applied Mathematics and Computer Science	Ph.D. in Neurobiology	June 2005
1997-2000	Weizmann Institute of Science, Department of Neurobiology	M.Sc. in Neurobiology	June 2000
1992-1996	The Open University, Faculty of Life Sciences	B.Sc. in Life Sciences	June 1996
1991	Ort Singalovsky	Electronics Practical Engineer	

Master's Thesis: Transformation of vibrissal sensory representations: Brainstem to Thalamus  
(Supervisor: Prof. Ehud Ahissar)

Doctoral Dissertation: The evolution of writing-like sequence movements representation through practice  
(Supervisors: Prof. Tamar Flash, Prof Avi Karni)

**B. Post-Doctoral Studies**

<b>Period of Study</b>	<b>Name of Institution, Department and Host</b>	<b>Degree</b>	<b>Year of Completion</b>
2005-2009	Bar-Ilan University, The Gonda Brain Research Center Host: Prof. Moshe Abeles	Post-doctoral research associate: Detection of the neural correlates of psychophysical motion primitives	2009

**3. Academic Ranks and Tenure in Institutes of Higher Education**

<b>Dates</b>	<b>Name of Institution and Department</b>	<b>Rank/Position</b>
1/5/2025	HIT – Holon Institute of Technology, Faculty of Electric and Electronics Engineering, Holon, Israel	Associate Professor
10/2013-1/5/2025	HIT – Holon Institute of Technology, Faculty of Electric and Electronics Engineering, Holon, Israel	Senior Lecturer
2010-present	HIT – Holon Institute of Technology, Faculty of Electric and Electronics Engineering, Holon, Israel	Head, Biomedical Engineering Group
2010-present	Tel-Aviv University, Biomedical Engineering, Tel-Aviv, Israel	Lecturer
10/2010-10/2013	HIT – Holon Institute of Technology, Faculty of Electric and Electronics Engineering, Holon, Israel	Equivalent to Lecturer
1/3/2009-10/2010	HIT – Holon Institute of Technology, Faculty of Electric and Electronics Engineering, Holon, Israel	Adjunct Lecturer

**4. Scholarly Positions and Activities outside the Institution****a. Representative:**

2025 Israeli Representative – European Cooperation in Science & Technology (COST)

**b. Reviewer:**

- 2020 • IEEE Transactions on Biomedical Engineering
- 2019 • Frontiers Neuroscience
- 2018; 2020 • Journal of Neural Engineering
- 2018 • IEEE Robotics and Automation Letters (IEEE RA-L)
- 2018 • Frontiers in Neuroinformatics
- 2018 • Scientific Reports
- 2010 • Cortex Journal
- 2007 • Society for Neuroscience Conferences

**5. Participation in Scholarly Conferences****a. Oral and Poster Presentations in Israel**

- 2019 4th International Brain Technology Conference (BrainTech 2019): Minding the Future, Tel-Aviv, Israel, 4-5 March 2019  
 Oral presentation: *The effects of dual tasking and aging on Event Related Potential (ERP) components of gait cycle*  
 (I. Maidan, D. Patashov, S. Shustak, **R. Sosnik**, N. Giladi, J. Hausdorff, A. Mirelman)

**5. Participation in Scholarly Conferences, contd.****a. Oral and Poster Presentations in Israel**

- 2015 The 11th Karniel Computational Motor Control Workshop and Agricultural, Biological and Cognitive Robotics Initiative, Ben-Gurion University of the Negev, Beer-Sheva, Israel, 16-18 June 2015  
Poster presentation: *Stopping performance is dependent on the internal representation of the movement*  
(**R. Sosnik**, E. Chaim, T. Flash)
- 2007 The Third Computational Motor Control Workshop (CMCW 2007), Beer-Sheva, Israel, 13-14 June 2007  
Poster presentation: *Analyzing movement trajectories using a Markov bi-clustering method*  
(K. Erez, J. Goldberger, **R. Sosnik**, M. Shemesh, S. Rothstein, M. Abeles)
- 2006 The Second Computational Motor Control Workshop (CMCW 2006), Beer-Sheva, Israel, 7 June 2006  
Poster presentation: *The point of no return in planar hand movements: An indication to the existence of high level motion primitives*  
(**R. Sosnik**, M. Shemesh, M. Abeles)
- 2001 Israel Society for Neuroscience Meeting, Neural Plasticity, Eilat Israel  
Poster presentation: *Trajectory modifications through practice: The emergence of effector and context specific novel trajectories in adults*  
(**R. Sosnik**, B. Hauptmann, T. Flash, A. Karni)
- 1999 The Eighth Annual Meeting of the Israel Society for Neurosciences, Eilat, Israel, 28 November-1 December 1999  
Oral presentation: *Coding of vibrissal information: Arc-based spatial and row-based temporal encoding/decoding schemes*  
(E. Ahissar, M. Zacksenhouse, **R. Sosnik**, S. Haidarliu)  
Poster presentation: *Brainstem to Thalamus transformations in the rat soma to sensory system*  
(**R. Sosnik**, S. Haidarliu, E. Ahissar)
- 1999 Fifth International Brain Research Organization (IBRO) World Congress of Neuroscience, Jerusalem, Israel, 11-15 July 1999  
Poster presentations: 1. *Decoding of vibrissal temporal information by Thalamo-cortical loops: theory and experimental verification*  
(E. Ahissar, **R. Sosnik**, A. Fichman, K. Mikenberg, S. Haidarliu)  
2. *Acetylcholine-dependent expression of functional plasticity in the barrel cortex of the rat*  
(V. Ego, D.E. Shulz, **R. Sosnik**, S. Haidarliu, E. Ahissar)  
3. *Simultaneous multi-site recordings, coupled with microiontophoretic drug and dye application, at different levels of the vibrissal sensory pathway*  
(S. Haidarliu, **R. Sosnik**, E. Ahissar)  
4. *Parallel pathways for processing spatial and temporal vibrissal information*  
(**R. Sosnik**, S. Haidarliu, E. Ahissar)
- 1998 The Seventh Annual Meeting of the Israel Society for Neurosciences, Eilat, Israel, 6-8 December 1998  
Oral presentation: *ACH-dependent plasticity in the barrel cortex*  
(D.E. Shulz, **R. Sosnik**, S. Haidarliu, E. Ahissar)

**5. Participation in Scholarly Conferences, contd.****b. Oral and Poster Presentations Abroad**

- 2016 Vth International Scientific Conference Motor Control 2016: Bridging Motor Control and Biomechanics, Wisła, Poland, 14-16 September 2016  
Poster presentation: *Please repeat – Classification of 3D reach targets from electroencephalographic signals is enhanced by repetition*  
(**R. Sosnik**, V.A. Tadipatri, A.H. Tewfik, G. Pellizzer)
- 2014 6th International Brain-Computer Interface Conference, Graz, Austria, 16-19 September 2014  
Poster presentation: *Correlation of EEG band power and hand motion trajectory*  
(A. Korik, N. Siddique, **R. Sosnik**, D. Coyle)
- 2006 The International Society for Magnetic Resonance in Medicine - ISMRM 14th Scientific Meeting and Exhibition, Seattle, Washington DC, USA, 6-12 May 2006  
Oral presentation: *A new method to record 2D-movement kinematics during functional magnetic resonance imaging (fMRI)*  
(F. Kushnir, T. Flash, E. Okon, A. Karni, B. Hauptmann, **R. Sosnik**, O. Smikt))
- 2004 The Annual Meeting of the Society for Neuroscience, San Diego, USA, 2004  
Poster presentations: 1. *The activity in contralateral MI, PM and bilateral SMA is maximal when executing straight trajectories and is inversely correlated with total position variance*  
(**R. Sosnik**, B. Hauptmann, A. Sterkin, T. Flash, A. Karni)  
2. *A new method to control for 2D-movement kinematics during functional magnetic resonance imaging (fMRI)*  
(B. Hauptmann, **R. Sosnik**, O. Smikt, E. Okon, T. Flash, A. Karni)
- 2001 The Annual Meeting of the Society for Neuroscience, San Diego, USA, 2001  
Poster presentation: *The evolution of versatile but effector specific novel motor trajectories in adults*  
(**R. Sosnik**, B. Hauptmann, T. Flash, A. Karni)
- 2000 30th Annual Meeting of the Society for Neuroscience, New Orleans, Louisiana, USA, 4-9 November 2000  
Poster presentations: 1. *Slow kinetics of the retrieval process of an acetylcholine-dependent potentiation of responses in the rat barrel cortex*  
(V. Ego, D.E. Shulz, **R. Sosnik**, S. Haidarliu, E. Ahissar)  
2. *Decoding of vibrissal temporal cues by Thalamocortical loops*  
(E. Ahissar, **R. Sosnik**, S. Cohen, K. Bagdasarian, S. Haidarliu)  
3. *Laminar organization of the cortical representations of vibrissal temporal information*  
(**R. Sosnik**, R. Gur, U. Polat, S. Haidarliu, E. Ahissar)
- 2000 2nd Forum of European Neuroscience, Brighton, UK, 24-28 June 2000  
Oral presentation: *Acetylcholine-dependent induction and expression of plasticity in the barrel cortex of the rat: Differential effect on firing rate and on functional coupling*  
(V. Ego, D.E. Shulz, **R. Sosnik**, S. Haidarliu, E. Ahissar)
- 1999 29th Annual Meeting of the Society for Neuroscience, Miami Beach, Florida, USA, 23-28 October 1999  
Poster presentations: 1. *Brainstem to Thalamus transformations, Thalamocortical coupling, and involvement of mGluRs during processing of vibrissal information*  
(S. Haidarliu, **R. Sosnik**, S. Barash, E. Ahissar)  
2. *Parallel Thalamocortical streams for spatial and temporal decoding of vibrissal information*  
(E. Ahissar, **R. Sosnik**, S. Haidarliu)

**6. Research Grants****a. Grants Awarded**

<b>Year</b>	<b>Funded by/ Amount</b>	<b>Topic</b>	<b>Co-Researchers</b>	<b>Role in Research</b>
2020-2022	Israel Ministry of Science and Technology: Israeli-French High Council for Scientific and Technological Cooperation Research Program "Maïmonide-Israel" NIS 307,970 (15/12/2020-14/12/2022)	Research Grant No. 3000017546: Devise of a novel approach to detect bipolar disorders based on EEG and fNIRS analysis	None	Principal Investigator
2012-2015	Israel Science Foundation NIS 277,000	Research Grant: Using stop paradigms for the detection of hand motion primitives	Prof. Mircea Poloson, University Hospital Grenoble, Grenoble, France; Prof. Anatoly Krenin, Technion, Haifa, Israel	Principal Investigator

**7. Scholarships, Awards and Prizes**

<b>Year</b>	<b>Name of Institution (city, country)</b>	<b>Occasion</b>
2022-2023; 2020-2021; 2018-2019; 2017-2018; 2013-2014	HIT – Holon Institute of Technology, Holon, Israel	Excellence award in research/creativity, teaching, and contribution to the institute and the community
2021-2022; 2019-2020	HIT – Holon Institute of Technology, Holon, Israel	Excellence award in research, teaching, and contribution to the institute and the community
2020-2021; 2015-2016	Department of Biomedical Engineering, Faculty of Engineering, Tel-Aviv University, Tel-Aviv, Israel	Award for distinction in teaching
2016-2017	HIT – Holon Institute of Technology, Holon, Israel	Excellence in academic field
2014-2015	HIT – Holon Institute of Technology, Holon, Israel	Excellence in research and teaching
2013-2014	Department of Biomedical Engineering, Faculty of Engineering, Tel-Aviv University, Tel-Aviv, Israel	Dean's award for distinction in teaching
2012-2013	HIT – Holon Institute of Technology, Holon, Israel	Award for distinction in teaching
2000-2005	Weizmann Institute of Science, Rehovot, Israel	Full tuition scholarship for 3rd degree
1997-2000	Weizmann Institute of Science, Rehovot, Israel	Full tuition scholarship for 2nd degree
1995	The Open University, Tel-Aviv, Israel	Dean's distinction award for academic excellence for 1st degree

**8. Teaching****a. Courses Taught in Recent Years at Tel-Aviv University**

Year	Name of Course	Type of Course Lecture/Seminar/ Workshop/High Learn Course/ Introduction Course (Mandatory)	Degree	Number of Students
2011-present	• Introduction to neuroprostheses	Lecture	B.Sc./M.Sc.	50-90

**a. Courses Taught in Recent Years at HIT – Holon Institute of Technology**

Year	Name of Course	Type of Course Lecture/Seminar/ Workshop/High Learn Course/ Introduction Course (Mandatory)	Degree	Number of Students
2011-present	• Linear electronics circuits	Introduction Course (mandatory)	B.Sc.	220-260
2011-2021	• Digital systems	Lecture	B.Sc.	20-35
2010-2011	• Electromagnetic fields	Introduction Course (mandatory)	B.Sc.	150-180
2009-present	• Introduction to neuroprostheses	Introduction Course (mandatory)	B.Sc./M.Sc.	10-18

**b. Supervision of Graduate Students at Tel-Aviv University****M.Sc. Students**

Name of Student	Title of Final Project	Degree	Date of Completion	Students' Achievements
Roy Kirshon; Chen Levi	Audio compression for sensorineural hearing loss patients (project 2nd distinction award)	M.Sc.	2011	None

**b. Supervision of Graduate Students at HIT – Holon Institute of Technology****B.Sc. Students**

Name of Student	Title of Final Project	Degree	Date of Completion	Students' Achievements
Dmitry Patashov	Research of walking and mobility during obstacle avoidance	B.Sc.	2016	2 refereed articles (D8; D10); 1 oral presentation
Oleg Dragnev; Simon Dezjshwilly	Identification of the movement direction by EEG signal	B.Sc.	2015	None

**8. Teaching, contd.****b. Supervision of Graduate Students at HIT – Holon Institute of Technology****B.Sc. Students**

<b>Name of Student</b>	<b>Title of Final Project</b>	<b>Degree</b>	<b>Date of Completion</b>	<b>Students' Achievements</b>
Ziv Suprin; Lior Ben Naim	Fetal heart rate monitor	B.Sc.	2013	None
Melik Iskimov; Avi Cohen Kadosh	Trainer heart failure detection system	B.Sc.	2012	None
Oren Shoef; Pavel Asinovesky	Gaze tracking system	B.Sc.	2012	None
Alexei Nomazov	Source localization in approximated brain medium using FEM algorithm	B.Sc.	2011	None
Leonid Kunin; Tsvi Shauli	Electronic braille writing (co-supervised with Prof. Gady Golan)	B.Sc.	2009	None

**9. Miscellaneous****a. Membership in Professional Societies**

2011-present	The Society of Electrical and Electronics Engineers in Israel (SEEEI)
2003-2004	Society for Neuroscience (SFN)

**10. Professional Experience**

2004-2005	Development and implementation of algorithms for PLC based weighing machines, Electronic PACKaging Systems (ELPACK) Ltd., Israel
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**PUBLICATIONS****Dr. Ronen Sosnik has an h-index of 19 (Google scholar)****A. Ph.D. Dissertation**

"The evolution of writing-like sequence movements representation through practice", 2005 (85 pages) in English, Department of Neurobiology and the Department of Applied Mathematics and Computer Science, Weizmann Institute of Science, Israel  
Supervisors: Prof. Tamar Flash' Prof. Avi Karni)

**D. Articles in Refereed Journals (ranked by either WoS or SCImago)****Published**

- \*1. **R. Sosnik**, A. Pouchon, A. Bertrand, M. Linder, M. Polosan (2026)  
Directed EEG microstate transitions during affective processing complement static microstate metrics in bipolar disorder  
NeuroImage, 332, (121902), to be published 15 May 2026  
<https://doi.org/10.1016/j.neuroimage.2026.121902>  
WoS: Q1; IF: 5.9 (2024)  
SCImago: Q1 (2024); h-index: 438
- \*2. I. Tahir, A. Plant-Chrétien, A. Bertrand, M. Linder, C. Dondé, **R. Sosnik**, M. Polosan (2026)  
Multimodal EEG-fNIRS classification as a clinical tool for bipolar disorder diagnosis  
Translational Psychiatry, published 10 March 2026  
<https://doi.org/10.1038/s41398-026-03858-1>  
WoS: Q1; IF: 7.0 (2024)  
SCImago: Q1 (2024); h-index: 137
- \*3. **R. Sosnik**, A. Bertrand, M. Linder, M. Polosan (2025)  
Event-related potential alterations in bipolar disorder subtypes and mood states: Insights from an emotional visual task  
J. of Affective Disorders, 391 (119970), 15 December 2025  
WoS: Q1; IF: 5.6 (2024)  
SCImago: Q1 (2024); h-index: 245
4. **R. Sosnik**, F. Fahoum, Z. Katzir, A. Mirelman, I. Maidan (2025)  
Key shifts in frontoparietal network activity in Parkinson's disease  
npj Parkinson's Disease, 11(1), (Article No.2)  
WoS: Q1; IF: 7.3 (2023); JCR citations: 3  
SCImago: Q1 (2023); h-index: 46; Scopus citations: 3  
[Google scholar citations: 4]
5. M. Bar-On, S. Baharav, Z. Katzir, A. Mirelman, **R. Sosnik** (2023)  
Task-related reorganization of cognitive network in Parkinson's disease using electrophysiology  
Movement Disorders, 38(11), 223 (2031-2040)  
<https://doi.org/10.1002/mds.29571>  
WoS: Q1; IF: 8.3; JCR citations: 7  
SCImago: Q1 (2023); h-index: 229; Scopus citations: 7  
[Google scholar citations: 7]
6. D.Z. Milikovsky, Y. Sharabi, N. Giladi, A. Mirelman, **R. Sosnik**, F. Fahoum, I. Maidan (2023)  
Paroxysmal slow-wave events are uncommon in Parkinson's disease  
Sensors, 23(2), (918)  
<https://doi.org/10.3390/s23020918>  
WoS: Q2; IF: 3.7; JCR citations: 3  
SCImago: Q1 (2023); h-index: 245; Scopus citations: 4  
[Google scholar citations: 5]

**D. Articles in Refereed Journals (ranked by either WoS or SCImago), contd.****Published**

7. **R. Sosnik**, S. Danziger-Schragenheim, D. Possti, F. Fahoum, N. Giladi, J.M. Hausdorff, A. Mirelman, I. Maidan (2021)  
Impaired inhibitory control during walking in Parkinson's disease patients: An EEG study  
J. of Parkinson's Disease, 12(1), (243-256)  
WoS: Q2; IF: 4.8; JCR citations: 10  
SCImago: Q1 (2023); h-index: 68; Scopus citations: 10  
[Google scholar citations: 12]
8. **R. Sosnik**, L. Zheng (2021)  
Reconstruction of hand, elbow and shoulder actual and imagined trajectories in 3D space using EEG current source dipoles  
J. of Neural Engineering, 18(5), (056011-1—056011-17)  
[<https://doi.org/10.1088/1741-2552/abf0d7>]  
WoS: Q2; IF: 5.0; JCR citations: 22  
SCImago: Q1 (2023); h-index: 135; Scopus citations: 26  
[Google scholar citations: 28]
9. D. Possti, F. Fahoum, **R. Sosnik**, N. Giladi, J.M. Hausdorff, A. Mirelman, I. Maidan (2021)  
Changes in the EEG spectral power during dual-task walking with aging and Parkinson's disease: Initial findings using Event-Related Spectral Perturbation analysis  
J. of Neurology, 268(1), (161-168)  
[<https://doi.org/10.1007/s00415-020-10104-1>]  
WoS: Q1; IF: 4.8; JCR citations: 26  
SCImago: Q1 (2023); h-index: 159; Scopus citations: 28  
[Google scholar citations: 40]
10. **R. Sosnik**, O. Ben Zur (2020)  
Reconstruction of hand, elbow and shoulder actual and imagined trajectories in 3D space using EEG slow cortical potentials  
J. of Neural Engineering, 17(1), (016065-1—016065-15)  
WoS: Q2; IF: 5.0; JCR citations: 29  
SCImago: Q1 (2023); h-index: 135; Scopus citations: 33  
[Google scholar citations: 40]
11. D. Patashov, Y. Menahem, O. Ben-Haim, E. Gazit, I. Maidan, A. Mirelman, **R. Sosnik**, D. Goldstein, J.M. Hausdorff (2020)  
Methods for gait analysis during obstacle avoidance task  
Annals of Biomedical Engineering, 48(2), (634-643)  
WoS: Q3; IF: 3.2; JCR citations: 5  
SCImago: Q2 (2023); h-index: 156; Scopus citations: 7  
[Google scholar citations: 12]
12. A. Korik, **R. Sosnik**, N. Siddique, D. Coyle (2019)  
Decoding imagined 3D arm movement trajectories from EEG to control two virtual arms – A pilot study  
Frontiers in Neurorobotics, 13, (1-22)  
WoS: Q3; IF: 3.1; JCR citations: 17  
SCImago: Q2 (2023); h-index: 50; Scopus citations: 20  
[Google scholar citations: 29]

**D. Articles in Refereed Journals (ranked by either WoS or SCImago), contd.****Published**

13. I. Maidan, D. Patashov, S. Shustak, F. Fahoum, E. Gazit, B. Shapiro, A. Levy, **R. Sosnik**, N. Giladi, J.M. Hausdorff, A. Mirelman (2019)  
A new approach to quantifying the EEG during walking: Initial evidence of gait related potentials and their changes with aging and dual tasking  
Experimental Gerontology, 126, (110709 – 7 pages)  
WoS: Q2; IF: 3.8; JCR citations: 14  
SCImago: Q1 (2023); h-index: 158; Scopus citations: 15  
[Google scholar citations: 22]
  
14. A. Korik, **R. Sosnik**, N. Siddique, D. Coyle (2018)  
Decoding imagined 3D hand movement trajectories from EEG: Evidence to support the use of Mu, Beta, and low gamma oscillations  
Frontiers in Neuroscience, 12, (Article 130,16 pages)  
[doi: 10.3389/fnins.2018.00130]  
WoS: Q2; IF: 4.3; JCR citations: 79  
SCImago: Q2 (2023); h-index: 153; Scopus citations: 91  
[Google scholar citations: 112]
  
14. **R. Sosnik**, V.A. Tadipatri, A.H. Tewfik, G. Pellizzer (2016)  
Block design enhances classification of 3D reach targets from EEG signals  
Neuroscience, 329, (201-212)  
WoS: Q2; IF: 3.0; JCR citations: 4  
SCImago: Q2 (2023); h-index: 246; Scopus citations: 4  
[Google scholar citations: 4]
  
15. **R. Sosnik**, E. Chaim, T. Flash (2015)  
Stopping is not an option – The evolution of unstoppable motion elements (primitives)  
J. of Neurophysiology , 114(2), (846-856)  
WoS: Q3; IF: 2.5; JCR citations: 12  
SCImago: Q2 (2023); h-index: 267; Scopus citations: 13  
[Google scholar citations: 21]
  
16. **R. Sosnik**, T. Flash, A. Sterkin, B. Hauptmann, A. Karni (2014)  
The activity in the contralateral primary motor cortex, dorsal premotor and supplementary motor area is modulated by performance gains  
Frontiers in Human Neuroscience, 8, (18 pages)  
[doi: 10.3389/fnhum.2014.00201]  
WoS: Q2; IF: 3.0; JCR citations: 23  
SCImago: Q2 (2023); h-index: 157; Scopus citations: 26  
[Google scholar citations: 41]
  
17. **R. Sosnik** (2010)  
Practice makes bimanual interference imperfect – On the way to the generation of bimanual motion primitives  
Cortex, 46(2), (264-267) [Discussion Forum]  
WoS: Q1; IF: 3.7; JCR citations: 2  
SCImago: Q1 (2023); h-index: 138; Scopus citations: 2  
[Google scholar citations: 3]
  
18. K. Erez, J. Goldberger, **R. Sosnik**, M. Shemesh, S. Rothstein, M. Abeles (2009)  
Analyzing movement trajectories using a Markov bi-clustering method  
J. of Computational Neuroscience, 27(3), (543-552)  
WoS: Q3; IF: 1.7; JCR citations: 2  
SCImago: Q4 (2023); h-index: 82; Scopus citations: 2  
[Google scholar citations: 6]

**D. Articles in Refereed Journals (ranked by either WoS or SCImago), contd.****Published**

19. B. Hauptmann, **R. Sosnik**, O. Smikt, E. Okon, D. Manor, T. Kushnir, T. Flash, A. Karni (2009)  
A new method to record and control for 2D-movement kinematics during functional magnetic resonance imaging (fMRI)  
Cortex, Special Issue, 45(3), (407-417) [Research Report]  
WoS: Q1; IF: 3.7; JCR citations: 11  
SCImago: Q1 (2023); h-index: 138; Scopus citations: 13  
[Google scholar citations: 14]
20. E. Ahissar, D. Golomb, S. Haidarliu, **R. Sosnik**, C. Yu (2008)  
Latency coding in POM: Importance of parametric regimes  
J. of Neurophysiology, 100(2), (1152-1154) [Letter to the Editor]  
WoS: Q3; IF: 2.5; JCR citations: 5  
SCImago: Q2 (2023); h-index: 267; Scopus citations: 7  
[Google scholar citations: 12]
21. **R. Sosnik**, M. Shemesh, M. Abeles (2007)  
The point of no return in planar hand movements: An indication of the existence of high level motion primitives  
Cognitive Neurodynamics, 1(4), 207 (341-358)  
WoS: Q2; IF: 3.5; JCR citations: 12  
SCImago: Q2 (2023); h-index: 51; Scopus citations: 12  
[Google scholar citations: 21]
22. **R. Sosnik**, T. Flash, B. Hauptmann, A. Karni (2007)  
The acquisition and implementation of the smoothness maximization motion strategy is dependent on spatial accuracy demands  
Experimental Brain Research, 176(2), (311-331)  
WoS: Q4; IF: 1.8; JCR citations: 20  
SCImago: Q3 (2023); h-index: 188; Scopus citations: 21  
[Google scholar citations: 34]
23. **R. Sosnik**, B. Hauptmann, A. Karni, T. Flash (2004)  
When practice leads to co-articulation: The evolution of geometrically defined movement primitives  
Experimental Brain Research, 156(4), (422-438)  
WoS: Q4; IF: 1.8; JCR citations: 129  
SCImago: Q3 (2023); h-index: 188; Scopus citations: 139  
[Google scholar citations: 195]
24. V. Ego-Stengel, D.E. Shulz, S. Haidarliu, **R. Sosnik**, E. Ahissar (2001)  
Acetylcholine-dependent induction and expression of functional plasticity in the barrel cortex of the adult rat  
J. of Neurophysiology, 86(1), (422-437)  
WoS: Q3; IF: 2.5; JCR citations: 45  
SCImago: Q2 (2023); h-index: 267; Scopus citations: 44  
[Google scholar citations: 67]
25. E. Ahissar, **R. Sosnik**, K. Bagdasarian, S. Haidarliu (2001)  
Temporal frequency of whisker movement II. Laminar organization of cortical representations  
J. of Neurophysiology, 86(1), (354-367)  
WoS: Q3; IF: 2.5; JCR citations: 112  
SCImago: Q2 (2023); h-index: 267; Scopus citations: 111  
[Google scholar citations: 166]

**D. Articles in Refereed Journals (ranked by either WoS or SCImago), contd.****Published**

26. **R. Sosnik**, S. Haidarliu, E. Ahissar (2001)  
Temporal frequency of whisker movement. I. Representations in brain stem and thalamus  
J. of Neurophysiology, 86(1), (339-353)  
WoS: Q3; IF: 2.5; JCR citations: 128  
SCImago: Q2 (2023); h-index: 267; Scopus citations: 132  
[Google scholar citations: 195]
27. E. Ahissar, **R. Sosnik**, S. Haidarliu (2000)  
Transformation from temporal to rate coding in a somatosensory thalamocortical pathway  
Nature, 406(6793), (302-306)  
WoS: Q1; IF: 54.4; JCR citations: 302  
SCImago: Q1 (2023); h-index: 1391; Scopus citations: 316  
[Google scholar citations: 503]
28. D.E. Shulz, **R. Sosnik**, V. Ego, S. Haidarliu, E. Ahissar (2000)  
A neuronal analogue of state-dependent learning  
Nature, 403(6769), (549-553)  
WoS: Q1; IF: 54.4; JCR citations: 129  
SCImago: Q1 (2023); h-index: 1391; Scopus citations: 145  
[Google scholar citations: 220]
29. S. Haidarliu, **R. Sosnik**, E. Ahissar (1999)  
Simultaneous multi-site recordings and iontophoretic drug and dye applications  
along the trigeminal system of anesthetized rats  
J. of Neuroscience Methods, 94(1), (27-40)  
WoS: Q2; IF: 2.7; JCR citations: 18  
SCImago: Q2 (2023); h-index: 175; Scopus citations: 19  
[Google scholar citations: 22]

**E. Chapters in Scientific Books (which are not Conference Proceedings)****Published**

1. A. Korik, **R. Sosnik**, N. Siddique, D. Coyle (2016)  
3D hand motion trajectory prediction from EEG Mu and Beta bandpower  
in: *Brain-Computer Interfaces: Lab Experiments to Real-World Applications*  
Progress in Brain Research series, Vol. 228, (71-105) 1st edition  
[ISBN: 978-0-128-04216-8]  
Scopus citations: 30  
[Google scholar citations: 31]
2. D. Coyle, **R. Sosnik** (2015)  
Neuroengineering  
In: *Springer Handbook of Computational Intelligence*  
J. Kacprzyk, W. Pedrycz (eds.)  
Springer Handbooks, Springer, Berlin, Heidelberg (727-769)  
[ISBN: 978-3-662-43504-5]  
JCR citation: 1  
Scopus citations: 2  
[Google scholar citation: 1]
3. **R. Sosnik**, F. Polyakov, T. Flash (2009)  
Motor sequences  
In: *Encyclopedia of Neuroscience*, L.R. Squire (ed.)  
Elsevier Academic Press, 5, (1047-1056)  
Scopus citations: 4  
[Google scholar citations: 9]

**F. Articles in Conference Proceedings****Published**

1. A. Korik, **R. Sosnik**, N.H. Siddique, D. Coyle (2016)  
Imagined 3D hand movement trajectory decoding from sensorimotor EEG rhythms  
Proc. 2016 IEEE Int'l. Conf. on Systems, Man, and Cybernetics (SMC 2016)  
Budapest, Hungary, 9-12 October 2016 (004591-004596)  
JCR citations: 12  
Scopus citations: 20  
[Google scholar citations: 30]
2. A. Korik, N. Siddique, **R. Sosnik**, D. Coyle (2016)  
Time varying EEG bandpower estimation improves 3D hand motion trajectory prediction accuracy  
Proc. Sixth Int'l. Brain-Computer Interface Meeting: BCI Past, Present, and Future  
Pacific Grove, CA, USA, 30 May-3 June 2016  
[Google scholar citations: 2]
3. A. Korik, N. Siddique, **R. Sosnik**, D. Coyle (2015)  
E3D hand movement velocity reconstruction using power spectral density of EEG  
signals and neural network  
Proc. 37th Annual Int'l. Conf. of the IEEE Engineering in Medicine and Biology  
Society (EMBC '15)  
Milano, Italy, 25-29 August 2015 (8103-8106)  
Scopus citations: 8  
[Google scholar citations: 15]
4. A. Korik, N. Siddique, **R. Sosnik**, D. Coyle (2014)  
Correlation of EEG band power and hand motion trajectory  
Proc. 6th Int'l. Brain-Computer Interface Conf.  
Graz, Austria, 16-19 September 2014  
[also published at the conference as a poster under the same title]  
[Google scholar citations: 14]
5. F. Kushnir, B. Hauptmann, **R. Sosnik**, O. Smikt, E. Okon, T. Flash, A. Karni (2006)  
A new method to record 2D-movement kinematics during functional magnetic  
resonance imaging (fMRI)  
Proc. The Int'l. Society for Magnetic Resonance in Medicine – ISMRM 14th Scientific  
Meeting and Exhibition  
Seattle, Washington DC, USA, 6-12 May 2006  
[Google scholar citation: 1]

**H. Other Scientific Publications****Technical Reports:**

- \*1. I. Maidan, **R. Sosnik**, F. Fahoum, A. Mirelman (2025)  
Neural biomarkers of cognitive impairment in Parkinson's disease  
IEICE Technical Report, 125(177), (44-45), published 1 September 2025

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\*Since last appointment