

*Biographical Sketch*  
YAROSLAV O. HALCHENKO

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**i. PROFESSIONAL PREPARATION**

Vinnitsia State Technical University, Ukraine	Laser and Optoelectronic Eng.	M.S.	1999
University of New Mexico, Albuquerque, NM	Computer Sci.	M.S.	2003
New Jersey Institute of Technology, Newark, NJ	Computer Sci.	Ph.D.	2009

**ii. APPOINTMENTS**

5/09– Postdoctoral Fellow, Department of Psychological and Brain Sciences Dartmouth College, NH

8/02–4/09 Research Assistant, [Mind/Brain RUMBA Laboratory \(Dr. S.J. Hanson\)](#), Rutgers-Newark, NJ

9/05–5/09 GNU/Linux Cluster Administrator, Rutgers-Newark, NJ

6/00–7/02 Research Assistant, [Brain and Computation Laboratory \(Dr. B.A. Pearlmuter\)](#), University of New Mexico, Albuquerque, NM

1/00–5/00 Teaching Assistant, Computer Science Department, University of New Mexico, Albuquerque, NM

**iii. (a). FIVE PUBLICATIONS RELATED TO PROPOSED TOPIC**

- M. Hanke, **Y. O. Halchenko**, J. V. Haxby, and S. Pollmann. Statistical learning analysis in neuroscience: aiming for transparency. *Frontiers in Neuroscience*, accepted
- R. A. Poldrack, **Y. O. Halchenko**, and S. J. Hanson. Decoding the large-scale structure of brain function by classifying mental states across individuals. *Psychological Science*, 20(11):1364–1372, Oct. 2009. ISSN 1467-9280. URL [http://www.poldracklab.org/pdfs/PsychScience\\_Feb09.pdf](http://www.poldracklab.org/pdfs/PsychScience_Feb09.pdf)
- M. Hanke, **Y. O. Halchenko**, P. B. Sederberg, S. J. Hanson, J. V. Haxby, and S. Pollmann. PyMVPA: A Python toolbox for multivariate pattern analysis of fMRI data. *Neuroinformatics*, 7(1):37–53, Mar. 2009a. DOI 10.1007/s12021-008-9041-y
- M. Hanke, **Y. O. Halchenko**, P. B. Sederberg, E. Olivetti, I. Fründ, J. W. Rieger, C. S. Herrmann, J. V. Haxby, S. J. Hanson, and S. Pollmann. PyMVPA: A unifying approach to the analysis of neuroscientific data. *Frontiers in Neuroinformatics*, 3(3), 2009b. DOI 10.3389/neuro.11.003.2009
- S. J. Hanson and **Y. O. Halchenko**. Brain reading using full brain support vector machines for object recognition: there is no “face” identification area. *Neural Computation*, 20:486–503, 2008. DOI 10.1162/neco.2007.09-06-340

### iii. (b). FIVE ADDITIONAL PUBLICATIONS

- M. Hanke, **Y. O. Halchenko**, P. B. Sederberg, and J. M. Hughes. *The PyMVPA Manual*. Available online at <http://www.pymvpa.org/PyMVPA-Manual.pdf>
- J. D. Ramsey, S. J. Hanson, C. Hanson, **Y. O. Halchenko**, R. A. Poldrack, and C. Glymour. Six problems for causal inference from fmri. *Neuroimage*, 49(2):1545–58, Jan. 2010. ISSN 1095-9572. DOI [10.1016/j.neuroimage.2009.08.065](https://doi.org/10.1016/j.neuroimage.2009.08.065)
- S. J. Hanson, R. Rebecchi, C. Hanson, and **Y. O. Halchenko**. Dense mode clustering in brain maps. *Magn Reson Imaging*, 25(9):1249–62, Nov. 2007b. ISSN 0730-725X. DOI [10.1016/j.mri.2007.03.013](https://doi.org/10.1016/j.mri.2007.03.013)
- S. J. Hanson, C. Hanson, **Y. O. Halchenko**, T. Matsuka, and A. Zaimi. Bottom-up and top-down brain functional connectivity underlying comprehension of everyday visual action. *Brain Struct Funct*, 212(3-4):231–44, Dec. 2007a. ISSN 1863-2653. DOI [10.1007/s00429-007-0160-2](https://doi.org/10.1007/s00429-007-0160-2)
- **Y. O. Halchenko**, S. J. Hanson, and B. A. Pearlmuter. *Multimodal Integration: fMRI, MRI, EEG, MEG*, chapter 8, pages 223–65. Dekker, 2005. URL <http://www.onerussian.com/Sci/fusion/fusion-chapter/HHP05.pdf>

### iv. SYNERGISTIC ACTIVITIES

- Co-author/maintainer: Python Multivariate Pattern Analysis framework (PyMVPA). 2007–present.
- Debian GNU/Linux developer. 2005–present.
- Co-founder of ExpPsy (Experimental Psychology) Debian packaging project.
- Contributor to FOSS projects: fail2ban, PsychoPy, etc.
- Active reviewer for IEEE Transactions on Signal Processing, Neural Computation, Neuroimage, Neuroreport, Human Brain Mapping, and Neurocomputing.

### v. (a) COLLABORATORS (past 48 months) & CO-EDITORS (past 24 months)

I. Fründ (U. Magdeburg, Germany), C. Glymour (CMU), M. Hanke (Dartmouth), S.J. Hanson (Rutgers-Newark), J.V. Haxby (Dartmouth), C.S. Herrmann (U. Magdeburg, Germany), E. Olivetti (FBK, Italy), R.A. Poldrack (U. Texas Austin), S. Pollmann (U. Magdeburg, Germany), J. Ramsey (CMU), J.W. Rieger (U. Magdeburg, Germany), P.B. Sederberg (Princeton).

### v. (b) GRADUATE AND POSTDOCTORAL ADVISORS

J.V. Haxby (Dartmouth), S.J. Hanson (Rutgers-Newark), B.A. Pearlmuter (NUI Maynooth), J.T.L. Wang (NJIT).