ARNO KLEIN

Email:
Website: http://binarybottle.com
Telephone:
Address: 116 Pinehurst Avenue, G3, New York, NY 10033

Birth: 12/28/1970, MI (US citizen)
Hobbies: Indian cave temple documentation (elloracaves.org),
Information visualization and graphical taxonomies (infovis.info),
Time-lapse photography and image processing (elloradaily.info),
Martial arts, Programming, Writing and Illustration

Education

1999 — 2004 **Cornell University Medical School** (New York, NY)
Ph.D. in Neuroscience, May 2004
Invented software to automate labeling of human brain image data

1996 — 1998 **California Institute of Technology** (Pasadena, CA)
Computation and Neural Systems Program
Brain tissue optics with 2-photon uncaging and biophysical computer modeling

1994 — 1996 **MIT** (Cambridge, MA)
M.S. in Media Arts and Sciences (Holography), September, 1996
Spatial Imaging Group, Media Laboratory
Dispersion correction for open-air and edge-lit holography

1991 — 1993 **University of Michigan** (Ann Arbor, MI)
B.S. in Biopsychology: Perception & Cognition Studies, May 1993
Computer-generated holographic stereogram research
Research assistant in the Kellogg Eye Institute

1990 — 1991 **Waseda University** (Tokyo, Japan)
Japanese studies, International Division
Autostereoscopic holography research, Tama Art College

1988 — 1990 **University of Southern California** (Los Angeles, CA)
Resident Honors Program scholar
Research assistant in Hedco Neurosciences
Independent display holography projects

Positions

2012 — present Research Assistant Professor
Department of Psychiatry and Behavioral Science
State University of New York (SUNY) at Stony Brook

2012 — present Adjunct, Department of Psychiatry
Columbia University (New York, NY)

2007 — 2012 Assistant Professor of Clinical Neurobiology
Department of Psychiatry
Columbia University (New York, NY)

2004 — 2007 Information Synthesis Theorist and Program Analyst
Parsons Institute for Information Mapping
The New School (New York, NY)

Grants

9/2010 — 8/2014	U01 MH074813 (Co-Investigator) Biological Predictors of Response to Antidepressants
10/2012 — 10/2013	U01 MH074813 supplement (Co-Investigator) Supplement for Software Development
9/2009 — 10/2012	R01 MH084029 (Principal Investigator) Mindboggling Shape Analysis

Teaching

2012 — 2013	Taught the MRI component of Stony Brook University Medical Center's imaging seminar
2013	Invited lecture for Stony Brook University's class on "The Art and Science of the Brain"
2007 — 2012	Invited lectures at Google, IBM, Dorkbot (3), Child Mind Institute, Janelia Farm, Yale, UCLA, Stanford (2), UPenn, Rutgers, Univ. of Konstanz, Max Planck Institute, etc.
2005 — 2011	Lecturer and guest lecturer for brain imaging courses, Columbia University
2009 — 2010	Columbia Co-lecturer for brain imaging course, Columbia
2007	MFA thesis evaluator and guest lecturer for classes in design, The New School, NY
2005 — 2007	Lecturer on data visualization and visualization ontologies to academic and government audiences, including the: *National Academy of Sciences, Office of the Director of National Intelligence, National Geospatial-Intelligence Agency, Port Authority of New York and New Jersey, Under Secretary of Defense at the Pentagon, ESRI and GEOINT conferences*

Membership and Service

2012 — present	Associate Editor for the journal: “Frontiers in Brain Imaging Methods”
2009 — present	International Neuroinformatics Coordinating Facility’s Neuroimaging Task Force (http://incf.org/core/programs/datasharing/people)
2007 — present	Reviewer for journals such as: *Frontiers in Brain Imaging Methods, NeuroImage, Human Brain Mapping, Neuroinformatics, IEEE Trans. on Medical Imaging, IEEE Trans. on Biomedical Engineering, Brain Structure and Function, International Journal of Biomedical Imaging, Psychiatry Research, Psychiatry Research: Neuroimaging*
2007 — present	Member of: Organization for Human Brain Mapping Society for Neuroscience New York Academy of Sciences
2007	Provost Curricular Committee Subchair, The New School, NY
2006	Designed M.S. curriculum for the Office of the President of The New School, NY
2004	Review panel member, National Science Foundation

Honors

2013	Winner of the Human Brain Mapping Conference "MNI Mashup" Hackathon Challenge sponsored by the Allen Brain Institute and Amazon Web Services
2012	Government of India grant recipient
2006	Mellon Foundation grant recipient
1993	Independent research grant for holographic research University of Michigan, Ann Arbor, MI
1990	International Scholar, Waseda University, Tokyo, Japan
1988	Resident Honors Scholar, Hedco Neurosciences, University of Southern California, Los Angeles, CA

Selected peer-reviewed publications

1. Tustison, NJ, Johnson, HJ, Rohlfing, T, **Klein, A**, Ghosh, SS, Ibanez, L, Avants, B. 2013.
   Instrumentation bias in the use and evaluation of scientific software:
   Recommendations for reproducible practices in the computational sciences (under review).
2. Ellis, S, **Klein, A**. 2013.
   Describing High-Order Statistical Dependence Using "Concurrence Topology",
   with Application to Functional MRI Brain Data (under review).
3. **Klein, A**, Tourville, J. 2012.
   101 labeled brain images and a consistent human cortical labeling protocol
   Frontiers in Brain Imaging Methods. 6:171. DOI: 10.3389/fnins.2012.00171
4. Ghosh, SS, **Klein, A**, Avants, B, Millman, J. 2012.
   Learning from open source software projects to improve scientific review
   Frontiers in Computational Neuroscience. 6:18. doi:10.3389/fncom.2012.00018
5. Avants, BB, Tustison, NJ, Song, G, Cook, PA, **Klein, A**, Gees, JC:
   A reproducible evaluation of ANTs similarity metric performance in brain image registration.
   NeuroImage 54(3):2033-2044, 2011.
   PMCID: PMC3065962.
6. Klein, BA, **Klein, A**, Wray, MK, Mueller, UG, Seeley, TD. 2010.
   Sleep Deprivation impairs precision of waggle dance signaling in honey bees.
   Proceedings of the National Academy of Sciences. 107(52):22705-22709.
7. **Klein, A**, Ghosh, SS, Avants, B, Yeo, BTT, Fischl, B, Ardekani, B, Gee, J, Mann, JJ, Parsey, RV:
   Evaluation of volume-based and surface-based brain image registration methods.
   NeuroImage 51:214-220, 2010.
   Supplementary website: http://www.mindboggle.info/papers/
   PMCID: PMC2862732
8. **Klein, A**, Andersson, J, Ardekani, BA, Ashburner, J, Avants, B, Chiang, M-C,
   Christensen, GE, Collins, DL, Gee, J, Hellier, P, Song, JH, Jenkinson, M, Lepage, C,
   Rueckert, D, Thompson, P, Vercauteren, T, Woods, RP, Mann, JJ, Parsey, RV:
   Evaluation of 14 nonlinear deformation algorithms applied to human brain MRI registration.
   NeuroImage 46(3):786-802, 2009.
   Supplementary website: http://www.mindboggle.info/papers/
   PMCID: PMC2747506
9. DeLorenzo, C, **Klein, A**, Mikhno, A, Gray, N, Zanderigo, F, Mann, JJ, Parsey, RV:
   A new method for assessing PET-MRI coregistration.
   Proceedings of SPIE - Medical Imaging 7259, 2009.
10. Klein, BA, Olzsowy, KM, **Klein, A**, Saunders, KM, Seeley, TD:
    Caste-dependent sleep of worker honey bees.
    Journal of Experimental Biology 211:3028-3040, 2008.
11. **Klein, A**:
    Relating vector ray-tracing equations for holograms of arbitrary shape and thickness.
    Journal of the Optical Society of America A 25(4):979-983, 2008.
12. **Klein, A**, Mensh, B, Ghosh, S, Tourville, J, Hirsch, J:
    Mindboggle: Automated brain labeling with multiple atlases.
    BMC Medical Imaging, 5:7, 2005.
13. **Klein, A** and Hirsch, J:
    Mindboggle: A scatterbrained approach to automate brain labeling.
    NeuroImage, 24(2):261-280, 2005.