

NICHOLAS A. DEL GROSSO

PERSONAL INFO

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| <i>Address</i> | Karl-Witthalm-Str. 3, 81375 München |
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GOALS

- Obtain a PhD in cognitive neuroscience by studying multimodal sensory integration and sensorimotor interactions.
- Obtain teaching, project management, and laboratory experience sufficient to one day become a competent university professor.
- Build technical skills in a wide variety of fields in order to perform high-quality research at institutes with limited resources.

EDUCATION

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| <i>Aug 2012</i> | <i>M.Sc. Neuroscience</i> | Max Planck International Research School, Graduate School of Neural and Behavioural Sciences |
| <i>May 2010</i> | <i>B.Sc. Psychology</i> | Wittenberg University |

RESEARCH EXPERIENCE

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| <i>May 2013 - Present</i> | <i>Ludwig-Maximilians Universität</i> | Prof. Dr. Anton Sirota Programmed a 3D graphics engine in Python to build virtual reality system for freely moving rats, supervised students in programming, engineering, and cognitive science projects, organized weekly journal clubs, and ordered new equipment. |
| <i>Aug 2012 - May 2013</i> | <i>Universität Tübingen</i> | Prof. Dr. Christoph Braun Wrote a research grant to study the top-down and bottom-up interactions by computational modeling information propagation in early sensory pathways as measured by MEG, designed and administrated an institute wiki, organized a student lecture series, and supervised two students' EEG research projects. |
| <i>Nov 2011 - July 2012</i> | <i>Universität Tübingen</i> | Prof. Dr. Niels Birbaumer Programmed in Matlab a time-frequency and evoked potential analysis on three years' worth of MEG data assessing longitudinal changes in stroke patients receiving physiotherapy. |
| <i>Oct 2012 - Nov 2012</i> | <i>Universität Tübingen</i> | Prof. Dr. Cornelius Schwarz In this lab rotation, I trained rats to perform whisking in response to barrel cortex stimulation viachronically-implanted electrodes, mapping stimulation sensitivity to each cortical layer. |

INDUSTRY EXPERIENCE

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| <i>Technical Consultant</i> | UKT Psychosomatic Med. and Sports Med. I evaluated and designed a solution for performing medical science studies in a placebo study, and taught the PhD student who carried out the study over several remote sessions and a few travel consultations. |
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JOURNAL PUBLICATIONS

Broetz D., Del Grosso, N.A., Rea M., Ramos-Murguialday, A., Soekadar S.R., Birbaumer, N. "A New Hand Assessment Instrument for Severely Affected Stroke Patients." *Journal of Neurorehabilitation*. 2014; 34(3), 409-27.

Benoit, J.B., Del Grosso, N.A., Yoder, J.A., Denlinger, D.L. "Resistance to Dehydration between Bouts of Blood Feeding in the Bed Bug, *Cimex Lectularius*, is Enhanced by Water Conservation, Aggregation, and Quiescence." *American Journal of Tropical Medical Hygiene*. May 2007; 76(5), 987-93.

CONFERENCE PUBLICATIONS

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| March 2015 | <i>Interact Munich</i> | Demonstrating a Freely-Moving Virtual Reality Approach for Rodent Research |
| Nov 2014 | <i>Society for Neuroscience</i> | ratCAVE, A Novel Virtual Reality System for Freely-Moving Rodents. |
| Nov. 2012 | <i>NENA Tübingen</i> | Interpreting (M)EEG, A First Look at Dynamic Causal Modeling. Introduced a probabilistic nonlinear modeling framework for interpretation of MEG and EEG data, along with the results of a pilot study in which we applied the approach. |
| Nov. 2011 | <i>NENA Tübingen</i> | The Intrinsic Bias During the Blind-Walking Task is Not Caused by an Aberrant Intrinsic Ground-Slope Model. |

SKILLS

- **Languages:** English (Mother Tongue), German (Level B1), French (Level A1-2)
- **Programming:** Python, Matlab, C-Sharp, GLSL, R, LabView, C, Bash, LaTeX
- **Stimulus Presentation:** Psychopy, Neurobs Presentation, Psychophysics Toolbox, OpenGL, Pyglet, SuperLab, RatCAVE
- **Statistical Analysis:** Statistical Parametric Mapping (SPM), SPSS, R, Matlab Statistics Toolbox, Fieldtrip, gTec Analyze, BrainVision Analyzer
- **Graphics:** Blender, Adobe Suite (Photoshop, Illustrator, and InDesign), OpenGL, Google SketchUp, GIMP, Inkspace
- **Wet Lab Skills:** Rat Neurosurgery, Animal Behavioral training (rats and monkeys), in vivo electrophysiology (single needle electrodes, chronically-implanted electrode arrays, noninvasive arrays of EEG electrodes and MEG sensors), Basic Electronics, Comfortable with building custom laboratory equipment
- **EEG System Experience:** BrainProducts, gTec, Grass Instruments, CTF

AWARDS

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| 2015 | Best Poster Award at Interact Munich Conference |
| 2011 | National Science Foundation Graduate Research Fellowship |
| 2008 | NSF Neuroscience REU Fellowship at Duke University |

Full List of Positions and Publications Available Upon Request.



December 11, 2015