

DR. ROMY LORENZ

EDUCATION

2013 – 2017	PhD Neurotechnology Thesis: <i>Neuroadaptive Bayesian optimization – Implications for the Cognitive Sciences</i> Supervisors: Dr. Robert Leech & Dr. Aldo Faisal	Imperial College London London, UK
2009 – 2012	MSc Human Factors (Distinction) neuro-cognitive psychology, neuroergonomics, brain-computer interfaces	Technical University of Berlin Berlin, Germany
2011	Study abroad biomedical engineering, system and computational neuroscience	Tsinghua University Beijing, China
2006 – 2009	BSc Business Psychology (First Class Honours) cognitive psychology, cognitive ergonomics, engineering psychology, Human Factors	Leuphana University Lüneburg, Germany
2008	Study abroad industrial psychology, usability engineering	Judson University Elgin, USA

RESEARCH POSITIONS

Sep 2018 – Aug 2022	Sir Henry Wellcome Postdoctoral Fellow For my Fellowship, I want to understand how frontoparietal brain networks give rise to our powerful cognitive abilities. I will approach this question in two stages: First, by using automated meta-analytic and text mining techniques, I will integrate information from thousands of existing experiments. This knowledge will then be refined using neuroadaptive Bayesian optimization. This work will be conducted together with John Duncan (Cambridge University), Nikolaus Weiskopf (MPI) and Russ Poldrack (Stanford University). In addition, I am collaborating with Adam Hampshire (Imperial College London) and Thomas Yeo (National University of Singapore).	University of Cambridge Cambridge, UK Max-Planck Institute for Human Cognitive & Brain Sciences Leipzig, Germany Stanford University Paolo Alto, US
Jul 2017 – Aug 2018	Postdoctoral Fellow , Department of Medicine Advancing neuroadaptive Bayesian optimization technology	Imperial College London London, UK
Sep 2017 – Oct 2017	Visiting Researcher , Computational Brain Imaging Group of Prof. BT Thomas Yeo Advancing text-mining of cognitive neuroimaging literature and towards evaluating top-down cognitive ontologies using neuroadaptive Bayesian Optimization	National University of Singapore Singapore
Oct 2013 – Jun 2017	Brain Science & Engineering PhD Training Fellow , Department of Medicine & Department of Bioengineering, Development of novel framework for optimizing experimental design in cognitive neuroscience using closed loop real-time fMRI and Bayesian optimization.	Imperial College London London, UK
Mar 2013 – May 2013	Visiting Researcher , Department of Cognitive Science & Swartz Center for Computational Neuroscience In-depth analyses of EEG data and application of machine-learning techniques for single-trial detection of error potentials for potential real-world application.	University of California San Diego (UCSD) San Diego, USA
Dec 2012 – Feb 2013	Research Associate , Berlin Brain-Computer Interface Group, Machine Learning Department Acquiring and analyzing EEG data and applying machine learning to identify individual stable brain patterns, which allow a reliable brain-computer interface based neuroprosthetic control.	Technical University of Berlin Berlin, Germany
Mar 2012 – Oct 2012	Graduate Thesis , Berlin Brain-Computer Interface Group, Department of Neurotechnology Evaluating usability and user experience of EEG-controlled brain-computer interface for prospective neuroprosthetic control within the EU-project MUNDUS.	Technical University of Berlin Berlin, Germany
Feb 2011 – Jun 2011	Lab Work , Institute for Neural Engineering, Department of Biomedical Engineering, School of Medicine Planning, conducting and analyzing EEG and fMRI experiments.	Tsinghua University Beijing, China

TEACHING

Every Feb 2017 – 2019	Lecturer for ‘Non-invasive brain-computer interfaces’ (MSc Translational Neuroscience), Designing and teaching of one-day course, Department of Medicine, Imperial College London
Oct 2015 – Dec 2015	Tutor for ‘The World Today’ (1 st year undergraduates), Imperial Horizons programme, Imperial College London (the team I was tutoring won one of the final prizes)
Feb 2015 – Apr 2015	Teaching Assistant for ‘Brain-Machine Interfaces’ (MSc Biomedical Engineering/MRes Neurotechnology), Department of Bioengineering, Imperial College London
Oct 2015 – Jan 2015	Teaching Assistant for ‘Modelling in Biology’ (BEng Biomedical Engineering), Department of Bioengineering, Imperial College London

SUPERVISION

Supervision

MSc/MRes	2018	Meghan Good MRes Experimental Neuroscience , Imperial College London
	2018	Jiewon Kang MRes Neurotechnology , Imperial College London

Co-Supervision

PhD	2018 - today	Nadene Dermody, MPI CBS (jointly with Alexandra Woolgar from University of Cambridge)
MSc/MRes	2019	Garazi Oiarbide MRes Experimental Neuroscience , Imperial College London
	2018	Pedro Costa MSc Biomedical Engineering , Lisbon University
	2016	Lisa Evans MRes Experimental Neuroscience , Imperial College London
BSc	2016	Amanda da Silva BEng Biomedical Engineering , Lisbon University
	2014	Paulina Majewska BSc Medical Biosciences , Imperial College London

GRANTS & FELLOWSHIPS

2017	Sir Henry Wellcome Postdoctoral Fellowship (£ 250k incl. salary) , Wellcome Trust
2017	Future Leader Fellowship (£ 300k incl. salary) , BBSRC [DECLINED]
2017	EPSRC Doctoral Prize Fellowship (£ 56,711 incl. salary) , Imperial College London
2016	Travel Grant (€ 225) , 6 th International Conference on Transcranial Brain Stimulation
2015	ITMAT Funding Award (£ 68,990) , NIHR Imperial Biomedical Research Centre, project: <i>Tailored non-invasive brain stimulation for rehabilitation of TBI using real-time fMRI</i> (co-author & named researcher, PI: Dr. Violante)
2015	Student Travel Grant (\$ 1,250) , Real-time Functional Imaging & Neurofeedback Conference 2015
2013	Brain Science & Engineering PhD Training Fellowship (£ 22,500 p.a. incl. salary) , Imperial College London
2013	Multimodal Neuroimaging Training Program Scholarship (\$ 3,250) , Carnegie Mellon University
2013	G.A.-Lienert Scholarship (€ 3,000) , Justus-Liebig University Giessen
2013	VRC Corporation Exchange Grant (€ 900) , HFES Europe
2011	Chinese Government Scholarship (RMB 37,100)

AWARDS & PRIZES

2018	Outstanding Contributions in AI – PhD Thesis Innovation Award , CogX 2018
2017	Merit Abstract Award (\$ 2,000) , Organization for Human Brain Mapping 2017
2016	Best Paper Award (€ 200) , Workshop on Pattern Recognition in Neuroimaging 2016
2016	Shortlisted for NeuroImage Best Paper Award 2016 , Organization for Human Brain Mapping 2016
2016	Highlighted Poster Presentation , 6 th International Conference on Transcranial Brain Stimulation
2014	1st place Early Career Best Paper Award (€ 500) , HFES Europe
2013	Graduate Student Excellence Award , VDI Association of German Engineers
2013	2nd place Poster Competition , 6 th Hamlyn Symposium on Medical Robotics
2013	1st place ‘Clara von Simson’ Prize (€ 2,500) , best thesis of a female graduate, Technical University of Berlin

INVITED TALKS

Sep 2019	University of Sussex , Sensation & Perception to Awareness Seminar Series (Anil Seth), Sussex, UK
Jul 2019	Keynote lecture at ‘ Neuroadaptive Technology Conference ’, Liverpool, UK
Feb 2019	Max Planck UCL Centre for Computational Psychiatry & Ageing Research (Ray Dolan), London, UK
Jan 2019	Keynote lecture at ‘ Closing Loops in Cognitive Neuroscience ’ Workshop, Bern, Switzerland
Mar 2018	Gatsby Computational Neuroscience Unit (Aapo Hyvarinen), London, UK
Feb 2018	Technical University Berlin , Neuroergonomics Group (Klaus Gramann), Berlin, Germany
Jan 2018	Birkbeck University , Centre for Brain and Cognitive Development (Angelica Ronald), London, UK
Dec 2017	NIPS Workshop “Bayesian Optimization for Science & Engineering”, LA, USA slides: https://figshare.com/articles/RomyLorenz_NIPS_Workshop2017/5687128
Oct 2017	National University of Singapore , Clinical Imaging Centre (Thomas Yeo), Singapore
Aug 2017	Cardiff University , School of Psychology (Chris Chambers), Cardiff, UK
Apr 2017	King’s College London , Department of Neuroimaging (Steve Williams), London, UK
Dec 2016	King’s College London , Department of Bioengineering (Giovanni Montana), London, UK

PUBLIC ENGAGEMENT

- Jan 2018 **Imperial Fringe Evening *Intelligence Redesigned***
Free evening of discovery for general public (across all age groups) by scientists of Imperial College London. I headed our team and was in charge of designing our hands-on demo: participants could test their mental skills on an iPad with “Cognitron” – the world’s first AI web server to test human intelligence developed by our team (PI: Dr Adam Hampshire).
- Nov 2016 **Future Forum Talk *Zapping your teacher’s brain to explore the potential of neurotechnology***, King’s College School Wimbledon, London
Future Forum Talks is for teens (13-16 years) to ask questions and explore ideas. I gave an interactive presentation on how the brain works and how neurotechnology can help to treat the ‘diseased’ or injured brain.
- Sept 2016 **NeuroTechX panel discussion *A skeptical look into neurotech***, THECUBE, London
I initiated, organized and chaired a panel discussion about the fast growing field of neurotechnology that has created a lot of hype, misinformation and unrealistically high expectations. The aim of the panel was to better under the limits of the field. Invited experts: NeuroSkeptic, Prof Eduardo Miranda, Dr InesViolante, Luke Mason and Tre Azam.
- 2014-2016 **Brain Injury Meet the Scientist Day**
Yearly event to engage patients suffering from traumatic brain injury and their families in our research. The event featured tours through our labs. I demonstrated EEG and brain stimulation as potential rehabilitation methods and designed questionnaires to measure the patient everyday technology usage and their readiness to learn and use new technology.
- Aug 2014 **STEM World Summer School**
This scheme offers hand-on enrichment activities in STEM subjects. I performed a live demonstration of my real-time functional brain imaging setup for a group of students (15-18 years). The students could track how brain activity changes in the motor cortex due to executed and even imagined finger movements. By this we could highlight the potential for using real-time neuroimaging for decoding cognitive states in humans.
- July 2014 **Royal Society Summer Science Exhibition**
The Summer Science Exhibition is an annual display of the most exciting cutting-edge science and technology research. I was part of the organization team and in charge of the production of the video explaining our research addressing a non-expert audience. During the one-week exhibition we interactively engaged the interested public in our research.

MEDIA OUTREACH

- Nov 2018 **Creative Intelligence podcast** with James Ingram *Creative intelligence, neuroscience & AI*
<http://www.creativeintelligence.fm/creative-intelligence-neuroscience-and-ai/>
- Mar 2018 **TEDxNTUA talk *Understanding the human mind without a human mind: The AI neuroscientist***
<https://www.youtube.com/watch?v=CVBlwQ0gzYU>
- Nov 2017 **WIRED Live talk *AI & Research***, London, UK
- Oct 2017 **On Augmentation**, online interview <https://on-augmentation.co/interview-with-romy-c2158f8b063f>
- Sep 2017 **WIRED Magazine**, featured in article *This AI could hold the key to decoding human intelligence* by Roger Highfield <http://www.wired.co.uk/article/automatic-neuroscientist-ai-brain-experiments>

ACADEMIC COMMUNITY INVOLVEMENT

Symposia/Workshops

- May 2019 **Co-organiser of *Open Science Day*** at Max Planck Institute CBS
- Mar 2019 **Organiser & chair of symposium *Causal inference applied to cognitive neuroscience: from brain connectivity to neurocognition*** at the Annual Meeting of Cognitive Neuroscience Society (CNS)

Meetup Groups

- 2018 - today **Co-initiator/organiser of *CoCoNUT*** – the Cognitive Computational Neuroscience Unification Trial
Bi-monthly meetup group across whole Max Planck Institute CBS to discuss ongoing research projects, new papers, methods, and have philosophical debates with regard to gain more mechanistic insights into cognition <https://www.cbs.mpg.de/en/cbs-coconut>.
- 2015 - 2017 **Co-initiator/organiser of *P3NL*** – the Peer-reviewed and Published Papers News Loop
Monthly scheme to present recently published papers by lab members and to provide insights into the publishing process. P3NL is about promoting communication and transparency and stimulate new collaborations <http://c3nl.com/events/p3nl>.

Reviewer

NeuroImage, Wellcome Open Research, Journal of Neural Engineering, IEEE Transactions on Neural Systems & Rehabilitation Engineering

ART & NEUROSCIENCE

- 2016 - 2018 **Director and Public Engagement Curator of *AXNS Collective - Art x Neuroscience***
AXNS <http://axnscollective.org/> is a not-for-profit, curatorial collective that explores the intersection between art, neuroscience & technology. We are four women working across the arts and sciences and curate exhibitions, events and workshops such as:
- *SINES - an LSD brain wave and sound art hackathon* with Imperial College London at Somerset House (Mar 2017)
 - Panel Discussion *Quantifying Aesthetic Emotions: What are the Implications for the Arts?* STATE Festival Berlin (Nov 2016)

PROJECT WORK

























- 2016 **Freelance consultant** for project *Technology Watch*, OutSmart Insights Ltd, London, UK
Tracking and summarizing latest breakthrough developments across science, technology and engineering themes.
- 2012 **Freelance consultant** for project *Brain-Computer Interfacing in Robotic Surgery*, collaboration between Hamlyn Centre for Robotics (ICL) and Technical University of Berlin
Main advisory consultant on study design and EEG setup. The study aimed to showcase the potential of brain-computer interfaces in robotic surgery and was conducted with resident surgeons.

SKILLS

Programming	MATLAB, Python, BASH
Software	FSL, SPM, EEGLAB, FieldTrip, AFNI, SPSS, LaTeX, Adobe Illustrator, Wordpress
Lab Skills	fMRI, EEG, transcranial electrical brain stimulation, eye tracking
Languages	German (native), English (fluent)

PUBLICATIONS

 Open Access  Code available  Preprint available

- Lorenz R**, Violante IR, Monti RP, Montana G, Hampshire A, Leech R (2018). Dissociating frontoparietal networks using neuroadaptive Bayesian optimization. *Nature Communications*, 9(1): 1227. doi: 10.1038/s41467-018-03657-3  
- Cole J, **Lorenz R**, Geranmayeh F, Wood T, Hellyer P, Williams S, Turkheimer F (2018). Active Acquisition for multimodal neuroimaging [version 1; referees: awaiting peer review]. *Wellcome Open Research*, 3:145, doi:10.12688/wellcomeopenres.14918.1 
- Lancaster J, **Lorenz R**, Leech R & Cole JH (2018). Bayesian Optimization for Neuroimaging Pre-processing in Brain Age Classification and Prediction. *Frontiers in Aging Neuroscience*, 10:28, doi: 10.3389/fnagi.2018.00028 
- Haijen E, Kaelen M, Roseman L, Timmermann C, Russ S, Nutt D, Daws RE, Hampshire A, **Lorenz R** & Carhart-Harris R (2018). Predicting responses to psychedelics: a prospective study. *Frontiers in Pharmacology*, doi:10.3389/fphar.2018.00897 
- Lorenz R**, Hampshire A, Leech R (2017). Neuroadaptive Bayesian optimization and hypothesis testing. *Trends in Cognitive Sciences*, 21(3): 155-167, doi: 10.1016/j.tics.2017.01.006 
- Monti RP, **Lorenz R**, Braga RM, Anagnostopoulos C, Leech R, Montana G (2017). Real-time estimation of dynamic functional connectivity networks, *Human Brain Mapping*, 38:202-220, doi: 10.1002/hbm.23355  
- Journal papers Monti RP, **Lorenz R**, Hellyer P, Leech R, Anagnostopoulos C, Montana G (2017). Decoding time-varying functional connectivity networks via linear graph embedding methods. *Frontiers in Computational Neuroscience*, 11:14, doi: 10.3389/fncom.2017.00014  
- Violante IR, Li LM, Carmichael DW, **Lorenz R**, Leech R, Hampshire A, Rothwell JC, Sharp, DJ (2017). Externally induced frontoparietal synchronization modulates network dynamics and enhances working memory performance. *Elife*, 6:e2200, doi: 10.7554/eLife.22001 
- Lorenz R**, Monti RP, Violante IR, Anagnostopoulos C, Faisal AA, Montana G, Leech R (2016). The Automatic Neuroscientist: A framework for optimizing experimental design with closed-loop real-time fMRI. *NeuroImage* 129: 320-334, doi: 10.1016/j.neuroimage.2016.01.032  
- Dinov M, **Lorenz R**, Scott G, Fagerholm E, Sharp DJ, Leech R (2016). Novel modeling of task versus rest brain state predictability using dynamic time warping: comparisons and contrasts with DFT, EEG avalanches, EEG microstates and BOLD dynamics, *Frontiers in Computational Neuroscience*, 10:46, doi: 10.3389/fncom.2016.00046 
- Zander TO, Shetty K, **Lorenz R**, Lefl DR, Krol LR, Darzi AW, Gramann K, Yang G-Z (2016). Automated Task Load Detection with Electroencephalography: Towards Passive Brain-Computer Interfacing in Robotic Surgery, *Journal of Medical Robotics Research*, 2(1): 1750003, doi: 10.1142/S2424905X17500039
- Kaelen M, Roseman L, Kahan J, Ribeiros AS, Orban C, **Lorenz R** et al. (2016). LSD enhances music-induced imagery via changes in parahippocampal connectivity, *European Neuropsychopharmacology*, 26(7):1099-109, doi: 10.1016/j.euroneuro.2016.03.018
- Fagerholm E, **Lorenz R**, Scott G, Dinov M, Hellyer P, Mirzaei N, Lesson C, Carmichael D, Sharp D, Shew W, Leech R (2015). Cascades and cognitive state: focused attention incurs subcritical brain dynamics. *Journal of Neuroscience*, 35(11): 4626-4634, doi: 10.1523/JNEUROSCI.3694-14.2015 
- Kaelen M, Barrett FS, Roseman L, **Lorenz R**, Family N, Bolstridge M, Curran HV, Feilding A, Nutt DJ, Carhart-Harris RL (2015). LSD enhances the emotional response to music. *Psychopharmacology*, 232(19): 3607-3614. doi: 10.1007/s00213-015-4014-y
- Lorenz R**, Pascual J, Blankertz B, Vidaurre C (2014). Towards a holistic assessment of the user experience with hybrid BCIs. *Journal of Neural Engineering*, 11(3): 035007, doi: 10.1088/1741-2560/11/3/035007
- Vidaurre C, Pascual J, Ramos-Murguialday A, **Lorenz R**, Blankertz B, Birbaumer N, Mueller K-R (2013). Neuromuscular electrical stimulation induced brain patterns to decode motor imagery. *Clinical Neurophysiology*, 124(9): 1824-1834, doi: 10.1016/j.clinph.2013.03.009
- Journal papers – in progress **Lorenz R**, Simmons L, Monti RP, Arthur J, Limal S, Leech R, Violante IR. Assessing tACS-induced phosphene perception using adaptive Bayesian optimization. *Submitted*, preprint available bioRxiv: doi.org/10.1101/150086 
- Lorenz R***, Kaelen M*, Barrett F, Roseman L, Santos-Ribeiro A, Evans L, Feilding A, Nutt D, Carhart-Harris R, Leech. Effects of LSD on music-evoked brain activity. *Under revision at NeuroImage*, preprint available bioRxiv: doi.org/10.1101/153031 
- Lorenz R**, Monti RP, Koush Y, Sharp D, Montana G, Hampshire A, Leech R, Violante IR. Towards tailoring non-invasive stimulation using neuroadaptive Bayesian optimization. *In preparation*
- Lorenz R***, Monti RP*, Hampshire A, Koush Y, Anagnostopoulos C, Faisal A, Sharp D, Montana G, Leech R, Violante IR (2016). Towards tailoring non-invasive brain stimulation using real-time fMRI and Bayesian optimization, In *6th International Workshop on Pattern Recognition in Neuroimaging (PRNI)*, doi: 10.1109/PRNI.2016.7552338 
- Monti RP, **Lorenz R**, Leech R, Anagnostopoulos C, Montana G (2016). Text-mining the NeuroSynth corpus using Deep Boltzmann Machines, In *6th International Workshop on Pattern Recognition in Neuroimaging (PRNI)*, doi: 10.1109/PRNI.2016.7552329  
- Conference papers **Lorenz R***, Monti RP*, Violante IR, Faisal A, Anagnostopoulos C, Leech R, Montana G (2015). Stopping criteria for boosting automatic experimental design using real-time fMRI with Bayesian optimization. In *5th NIPS Workshop on Machine Learning and Interpretation in Neuroimaging: Beyond the Scanner*, arXiv:1605.04435v1, MLINI/2015/15  
- Monti RP, **Lorenz R**, Hellyer P, Leech R, Anagnostopoulos C, Montana G (2015). Graph Embeddings of Dynamic Functional Connectivity Reveal Discriminative Patterns of Task Engagement in HCP Data. In *5th International Workshop on Pattern Recognition in Neuroimaging (PRNI)*, doi: 10.1109/PRNI.2015.21  
- Pascual J, **Lorenz R**, Blankertz B, Vidaurre C (2013). Hybrid EEG-Based BCI User Interface for Action Selection. In Pons JL, Torricelli D, Pajaro M (eds.) *Converging Clinical & Engineering Research on Neurorehabilitation*, BIOSYSROB 1 (pp. 1171-1176). Springer, Berlin, Heidelberg, doi: 10.1007/978-3-642-34546-3_194

Curriculum Vitae – ROMY LORENZ

- Book chapters**
- Zander TO, Brönstrup J, **Lorenz R**, Krol LR (2014). Towards BCI-based Implicit Control in Human-Computer Interaction. In S Fairclough and K Gilleade (eds), *Advances in Physiological Computing*, Human Computer Interaction Series (pp.67-90). Springer, London, doi: 10.1007/978-1-4471-6392-3_4
- Lorenz R (2019)**. Neuroadaptive Bayesian optimization in healthy and diseased individuals. Talk at symposium “Closing the loop between brain and behavior – hemodynamic neurofeedback and beyond. *Annual Meeting “Psychologie und Gehirn”*, Dresden, Germany
- Lorenz R**, Violante IR, Monti R, Montana G, Hampshire A, Leech R (2017). Fractioning frontoparietal brain networks using neuroadaptive Bayesian optimization. *Real-time functional neuroimaging and neurofeedback conference 2017*, 30.9.2017, Nara, Japan.
- Lorenz R**, Violante IR, Monti R, Montana G, Hampshire A, Leech R (2017). Fractioning frontoparietal brain networks using neuroadaptive Bayesian optimization. *Organization for Human Brain Mapping Annual Meeting 2017*, 30.6.2017, Vancouver, Canada. Slides: https://figshare.com/articles/RomyLorenz_OHBM2017_pdf/5160877
- Lorenz R**, Monti RP, Hampshire A, Koush Y, Anagnostopoulos C, Faisal A, Sharp D, Montana G, Leech R, Violante IR (2016). Towards tailoring non-invasive brain stimulation using real-time fMRI and Bayesian optimization. *6th International Workshop on Pattern Recognition in Neuroimaging (PRNI)*, 23.06.2016, Trento, Italy.
- Conference talks**
- Lorenz R**, Monti RP, Leech R, Anagnostopoulos C, Montana G (2016). Text-mining the Neurosynth corpus using Deep Boltmann Machines. *6th International Workshop on Pattern Recognition in Neuroimaging (PRNI)*, 22.06.2016, Trento, Italy.
- Lorenz R**, Monti RP, Violante IR, Anagnostopoulos C, Faisal AA, Montana G, Leech R (2015). Stopping criteria for boosting automatic experimental design using real-time fMRI with Bayesian optimization. *5th NIPS Workshop on Machine Learning and Interpretation in Neuroimaging: Beyond the Scanner*, 11.12.2015, Montreal, Canada.
- Lorenz R**, Monti RP, Violante IR, Anagnostopoulos C, Faisal AA, Montana G, Leech R (2015). The Automatic Neuroscientist: towards optimising patient-tailored cognitive rehabilitation therapy. *International Conference on Brain Informatics & Health*, 30.08.2015, London, UK.
- Lorenz R**, Pascual J, Blankertz B, Vidaurre C (2013). Assessing the User Experience with Hybrid BCIs. *4th TOBI Workshop – Practical Brain-Computer Interfaces for End-Users: Progress and Challenges*, 23.01.2013, Sion, Switzerland.
- Lorenz R**, Johal M, Dick F, Hampshire A, Leech R, Geranmayeh F (2019). Identifying individual functional profiles for a frontoparietal network in aphasic stroke patients. *Organization for Human Brain Mapping Annual Meeting 2019*, Rome, Italy
- Kang J, Violante IR, Monti RP, Soreq E, Leech R, Hampshire A & **Lorenz R (2018)**. Dissociating frontoparietal networks based on functional connectivity states. *BioMedEng18 Conference*, London, UK
- Lorenz R**, Simmons L, Monti RP, Arthur J, Limal S, Leech R & Violante IR (2017). Assessing tACS-induced phosphene perception using adaptive Bayesian optimization. *Organization for Human Brain Mapping Annual Meeting 2017*, Vancouver, Canada.
- Lorenz R**, Monti RP, Koush Y, Anagnostopoulos C, Faisal A, Sharp D, Hampshire A, Montana G, Leech R & Violante IR (2016). The Automatic Neuroscientist: Tailoring non-invasive brain stimulation using real-time fMRI and Bayesian optimization, *6th International Conference on Transcranial Brain Stimulation*, Göttingen, Germany.
- Conference posters (first- & senior-authored ones listed only)**
- Lorenz R**, Monti RP, Koush Y, Anagnostopoulos C, Faisal A, Sharp D, Hampshire A, Montana G, Leech R & Violante IR (2016). Tailoring non-invasive brain stimulation using real-time fMRI and Bayesian optimization, *Organization for Human Brain Mapping Annual Meeting 2016*, Geneva, Switzerland.
- Lorenz R**, Monti RP, Koush Y, Anagnostopoulos C, Faisal A, Sharp D, Hampshire A, Montana G, Leech R & Violante IR (2016). Tailoring non-invasive brain stimulation using real-time fMRI and Bayesian optimization, *Brain Stimulation and Imaging Meeting*, Geneva, Switzerland.
- Lorenz R**, Monti RP, Braga R, Anagnostopoulos C, Faisal A, Montana G & Leech R (2015). Turning fMRI experiments on its head using rt-fMRI: opening new avenues in cognitive neuroscience. *Organization for Human Brain Mapping Annual Meeting 2015*, Honolulu, US.
- Lorenz R**, Monti RP, Cole J, Faisal A, Anagnostopoulos C, Montana G & Leech R (2015). Towards steering the chronnectome - on the potential of dynamic functional connectivity-based neurofeedback of large scale brain networks. *Real-time Functional Imaging and Neurofeedback Conference 2015*, Gainesville, US.
- Lorenz R**, Faisal AA, Dinov M, Violante IR & Leech R (2014). Neurofeedback training of large-scale brain networks. *Annual Meeting of Society of Neuroscience 2014*, Washington DC, US.
- Lorenz R**, Pascual J, Blankertz B & Vidaurre C (2013). Towards a broad-scale Usability Evaluation of Hybrid BCIs. *5th International Brain-Computer Interface Meeting 2013*, Pacific Grove, US.
- Open peer-reviews**
- Leech R & **Lorenz R (2017)** Review for: J Westfall, TE Nichols, T Yarkoni. Fixing the stimulus-as-fixed-effect fallacy in task fMRI, *Wellcome Open Research*, doi: 10.21956/wellcomeopenres.11977.r21481

