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CURRENT POSITION

Lifetime BIH Johanna-Quandt Professor of Brain Simulation
Director, Brain Simulation Section at Berlin Institute of Health
Charité Universitätsmedizin Berlin

DEGREES

INSTITUTION AND LOCATION	DEGREE	DATE	FIELD
Educational commission for foreign medical graduates, Philadelphia, USA	United States Medical Exam Step1	12/98	Medicine
Charité University Medicine Berlin, Germany	MD	11/00	Medicine
Charité University Medicine Berlin, Germany	Approbation	07/02	Allowance to practice Medicine
Charité University Medicine Berlin, Germany	Dr.med (doctoral thesis)	11/04	Neuroscience
Charité University Medicine Berlin, Germany	Priv.Doz. (habilitation)	01/10	Experimental Neurology

EDUCATION

Medical Intern, Neurology at Harvard Medical School, Boston, USA (Supervisor: Prof. J.D. Schmahmann)	05/2000
Medical Intern, Internal Medicine at Mount Sinai School of Medicine, New York, USA (Supervisor: Prof. A.S. Teirstein)	02/2000 – 04/2000
Medical Intern, General surgery at UCSD Thornton Hospital, La Jolla, USA (Supervisor: Prof. R. Gamagami)	12/1999 – 02/2000
Medical Intern, Neurosurgery & Trauma surgery at UCLA, Los Angeles, USA (Supervisors: Prof. A.I. Feldman & Prof. M.P. Sawicki)	11/1999 – 12/1999

Medical studies, Charité University Medicine Berlin, Germany	10/1994 – 11/2000

POSITIONS

Professor of Brain Simulation (lifetime BIH Johanna Quandt Professor) and Director of the Brain Simulation Section, Berlin Institute of Health, Charité University Medicine Berlin Germany	10/17 -
Appointment Full Lifetime Professor for Neurophysiology at Padova University, Italy (declined)	09/16
Research Group Leader, Dept. Neurology, Charité University Medicine Berlin, Germany	01/16-09/17
Minerva Research Group Leader (W2 - corresponding to Associate Professor level), MPI Human Cognition and Brain Sciences, Leipzig, Germany	01/11-12/15
Resident Physician in Neurology and Research Fellow, Dept. Neurology, Charité University Medicine Berlin, Germany	01/01-12/10

EXPERIENCE

RESEARCH AND LEADERSHIP EXPERIENCE

Coordinator EU Infrastructure Project eBRAIN-Health (€13Mill)	2022 -
Coordinator 'Consortium EBRAINS Health Data Cloud for the Human Brain Project'	2021 -
Spokesperson National Research Infrastructure for Neuroscience Initiative (NFDI-Neuro)	2021 -
Lead Virtual Research Environment, Charité & Berlin Institute of Health	2020 -
Steering Committee Translation Hub Digital Medicine Charité and Berlin Institute of Health, elected member	2019 -
Coordinator EOSC project Virtual Brain Cloud Consortium (€15Mill)	2018 -
Coordinator, Consortium 'Co-Designing Digital Infrastructure for the Human Brain Project',	2018 - 2020
Steering Committee member Collaborative Research Centre 1315 'Mechanisms and disturbances in memory consolidation', German Research Foundation DFG	2018 -
Steering Committee member, DFG Special Priority Program: Computational Connectomics	2017 -
Co-Founder, The Virtual Brain neuroinformatics platform	2010 -

Coordinator, National network 'Bernstein Focus: State Dependencies of Learning' (Consortium of five research institutions)	2009 - 2017
Visiting Scientist, Black Dog Institute & UNSW (host: Prof. Breakspear), Randwick, Australia	07/08 – 08/08
Co-Founder, International BrainModes Workshop Series	2007 -

TEACHING AND MENTORING EXPERIENCE

Board member Digital Clinician Scientist program at the Charite	2018 -
Co-organizer Future Medicine Science Match Conference Berlin with nealy 1000 participants	2020
Mentor in the EU Flagship Human Brain Project Mentoring Program	2020 -
Mentor in the Charité Mentoring Program	2019
Docent Bernstein Center Computational Neuroscience Berlin The Virtual Brain Course for Masters students – ca.30 hours per semester on average	2017 -
Docent, Interdisciplinary Problem Oriented Learning, Model Curriculum Medicine (undergraduate), Charité Universitätsmedizin Berlin - on average 48 hours per semester.	2003 - 2017
Supervision of ca.20 Postdocs, 20 PhD students and 15 Master's students and numerous lab rotations	2002 –
Organizer, docent, The Virtual Brain Node workshops: Introductions to computational full brain modelling and hands-on sessions; 2014: Hamburg, Göttingen, Washington DC; 2015: Berlin, Chicago; 2016: London, Ghent, Hamburg; 2017: Toronto, Marseille; 2018: Berlin, Montreal; 2019: Warsaw, since 2020 (due to Covid) three-monthly online courses	2014 -
Organizer and presenter, Educational Workshops at Human Brain Mapping conferences; 2014: Workshop Multimodal imaging and electrophysiology; 2015: Workshop Multimodal imaging and electrophysiology & Workshop Modeling; 2020: An Introduction to network neuroscience; 2020, 20221, 2022: An Introduction to Network Neuroscience	2014/15/20/21/22
Presenter Summer School in Computational and Theoretical Models in Neuroscience, Venice	2019
Barcelona Cognition, Brain, and Technology Summer School	2019
Organizer and presenter, Educational Workshop at FENS Copenhagen, Full Brain Network Dynamics – Modeling, Analyses, Experiments	2016

Docent, 2nd International Summer School and Workshop on Brain Dynamics: Connectivity & Cognition. Institute of Theoretical and Applied Physics, ITAP Dereözü Campus, Turunc, Marmaris, Turkey	2013
Educational Talk at Brain Connectivity Workshop, Montreal, Canada	2011
Docent, PhD course Functional Magnetic Resonance Imaging, Copenhagen, Denmark	2009

CLINICAL EXPERIENCE

Clinical Scientist & Neurology Residency at Dept. of Neurology, Charité University Medicine Berlin	2001 - 2007

PROFESSIONAL HONORS AND RECOGNITION

Nomination Science Breakthrough of the Year 2020 at the Falling Walls Conference 2020	2020
ERC Consolidator Grant BrainModes ,Personalized whole brain simulations: Linking connectomics and dynamics in the human brain	2016 - 2022
Charité Biomedical Entrepreneurship Summit, Special Award ‚Biomedical Business Idea 2009'	2009
Fast Track Scholarship, Robert-Bosch Trust	2007 - 2010
For Women in Science Award, C. Nüsslein-Volhard Trust & UNESCO & L'oreal	2007 - 2009
Rahel-Hirsch Fellowship, Charité Universitätsmedizin Berlin	2006 - 2009
Research Scholarship of the Dean, Charité Universitätsmedizin Berlin	2001 - 2002

ACADEMIC SERVICE, FUNCTIONS, MEMBERSHIPS

Extended Directorate Member (elected), Berlin Institute of Health	2021 -
Member and confident (Ombudsperson), Committee for good scientific practice, Charité	2021 –
Spokesperson (elected) Translation Hub Digital Medicine at the BIH & Charité	2020 -
Representative of the Charité at EOSC Association and elected Member of the Technical Interoperability Advisory Group, European Open Science Cloud	2021 -
Member of the Architecture Working Group at European Open Science Cloud	2020

Scientific Advisory Board of the European School of Network Neuroscience	2019 -
Ingrid zu Solms Foundation, Medicine Advisory Board member	2019 -
Scientific Advisory Board of the Rector's Board, Universität Bonn	2018 -
European Research Council (ERC) panel member and deputy panel chair (2016-2018)	2011 - 2018
Advisory Board member, Fraunhofer Institute for Algorithms and Scientific Computing SCAI	2018 -
Associated Editor, Network Neuroscience Journal	2016 -
Editorial Board, Brain Connectivity Journal	2011 -
Editorial Board, NeuroImage	2011 – 2014
Member, Brain Connectivity Workshop Advisory Board	2010 -
Member, Bernstein Network Computational Neuroscience	2009 -
Member, Society for Neuroscience (SfN)	1999 -
Member, Organization Human Brain Mapping (OHBM)	1998 -

PRIVATE SECTOR PARTNERSHIPS

Co-development of the Virtual Research Environment at the Charité and BIH with non-for-profit SME Indoc Research	2020 -
Co-development of The Virtual Brain Cloud with non-for-profit SME Indoc Research	2019 -
Co-development of The Virtual Brain Cloud with SMEs Codebox, Codemart and Eodyne	2018 -
Co-development of The Virtual Brain platform with SMEs Codebox and Codemart	2009 -

PUBLIC ENGAGEMENT WORK

Humboldt Forum Exhibition, Berlin, Interactive virtual brain experience	2020 -
Human Brain Project exhibition at the German Parliament	2019
Interactive Brain Atlas with explanations in multiple languages co-developed with Bloomfield Museum Jerusalem – is part of the Human Brain Project Travelling Exhibition – also available as Web App brainsimulation.org/atlasweb/ and iOS App	2019 -

Girls day: one-day experience at BrainSImulation lab.	2018 -
Regular exhibitions and live shows at Long Night of Sciences / of Museums Berlin, Tech Exhibitions, TV and radio, and other public events making our new technologies experienceable	2015 -
BrainModes iOS App for visualizing brain activity on mobile devices or in virtual reality	2015 -
My Virtual Dream, immersive Art-Science show controlled by the collective brain activity of participants	2013 -

GRANT HISTORY

Total acquired funding for own research: €15,689,444

Total acquired funding as coordinator of consortia: €41,303,776

Coordinator, EU Horizon Europe Infrastructure eBRAIN-HEALTH ‘Actionalble Multilevel Health Data’ €1.396.250 Ritter, subproject (total: €13Mill)	2022-2026
PI, Horizon Europe Health AISN ‘Integrating AI in Stroke Neurorehabilitation’ €700,185 Ritter, subproject	2022-2026
PI, Horizon European Innovation Council EIC 2021 Transition Challenge, PHRASE: Personalized Health Cognitive Assistance for Rehabilitation System €506,881 Ritter, subproject	2022-2025
Co-PI, ERA PerMed, PatternCog: Personalized aging pattern for early risk detection and prevention of cognitive impairment and dementia in cognitively healthy individuals € 330,000 Ritter, subproject	2022-2024
Co-PI, German Research Foundation (DFG), Special Priority Program: Computational Connectomics, Clinical Connectomics: A network approach to deep brain stimulation, grant number RI 2073/10-2 € 269,350 Ritter, sub-project	2021-2023
Co-PI, German Research Foundation (DFG), Special Priority Program: Computational Connectomics, The Language Connectome in Brain Tumor Patients, grant number RI 2073/9-1 € 176,350 Ritter, sub-project	2021-2023
PI, DFG, Collaborative Research Center 1436 Neural Resources of Cognition ‘Intervening in circuits for cognitive resource allocation in primates’ € 178,000 Ritter, subproject	2021-2024
PI, DFG, Collaborative Research Center- Transregio 295 Retuning dynamic motor network disorders using neuromodulation, “Towards Virtual Deep Brain Stimulation”	2020-2024

€ 200,000 Ritter, subproject

PI, EU-H2020, Human Brain Project SGA3 2020-2023
€ 1,224,361.79 Ritter sub-project (total €150,000,000.00)

Supervisor, Canadian Institutes of Health Research (CIHR) stipendiary 2020-2023
€ 137,286

PI, German Research Foundation (DFG), Collaborative Research Center 936 Multi-Site Communication in the Brain, "Multiscale modeling of network dynamics" 2019-2023
€ 200,000 Ritter, sub-project

Coordinator, H2020 Research and Innovation Action, Virtual Brain Cloud: Personalized Recommendations for Neurodegenerative Diseases grant number 826421 2018-2022
€1,965,750 Ritter sub-project / €15,016,343 total

Coordinator, PI, EU-H2020, 'Human Brain Project: Testing pathophysiological models of brain diseases – The Neurodegenerative Virtual Brain' grant number 785907 2018-2020
€ 120,000 Ritter, sub-project /€ 470,000 total

Steering Committee, DFG, Collaborative Research Centre 'Mechanisms and disturbances in memory consolidation', grant number 1315 2018-2022
€ 273,600 Ritter, sub-project/ €10,730,100

Coordinator, PI, EU-H2020, 'Co-Designing Digital Infrastructure for the Human Brain Project: The Virtual Brain' grant number 785907 2018 - 2020
€ 462,250 Ritter, sub-project /€ 850,000 total

Berlin Institute of Health & Foundation Charité; Role: PI 2017 - 2022
€ 2.5 Mill

Co-PI, German Research Foundation (DFG), Special Priority Program: Computational Connectomics, Connnectome based multi-scale modeling in stroke, grant number RI 2073/6-1 2018 - 2020
€ 171,950 Ritter, sub-project

PI, ERC Consolidator Grant (BrainModes 683049), Personalized whole-brain simulations - linking connectomics and dynamics in the human brain 2016 - 2021
€ 1.87 Mill

Co-PI, German Ministry of Education and Research, US-German Collaboration in Computational Neuroscience Connectomics and large-scale dynamics of the human brain 2016 - 2019
€ 270,901.20 Ritter sub-project

Co-Founder, German Ministry for Economic Affairs and Energy, EXIST Forschungstransfer, Development of a mobile app for commercial brain computer interfaces using The Virtual Brain technology 2015 - 2017
€ 500,000

Co-PI, JS McDonnell Foundation (USA), Brain Network Recovery Group € 650,000 Ritter sub-project	2010 - 2017
Coordinator, PI, German Ministry of Education and Research, Bernstein Focus State Dependencies of Learning, a collaboration between seven research groups from five different institutions in Germany € 440,000 Ritter, sub-project /€ 2,500,000 total	2009 – 2016
BrainModes Workshop, German Research Foundation (DFG) € 10,500	2010
Brain Connectivity Workshop, German Research Foundation (DFG) € 23,230	2010
Coordinator, PI, German-Australian Collaboration, German Ministry of Education and Research € 7,000	2008 - 2009
Rahel Hirsch Scholarship Charité University Medicine, Berlin € 190,000	2006 - 2009

PUBLICATIONS

h-index (Google Scholar): 37
i10-index: 56

PEER-REVIEWED JOURNALS

1. Meier, Perdikis, Blickensdörfer, Stefanovski, Liu, Maith, Dinkelbach, Baladron, Hamker, **Ritter** (2022) Virtual deep brain stimulation: Multiscale co-simulation of spiking basal ganglia model and whole-brain mean-field model with The Virtual Brain. Experimental Neurology IF-2021 6.089
2. Gulin-Gonzalez, Bringas-Vega, Martinez-Montes, Ritter, Solodkin, Valdes-Sosa, Valdes-Sosa (2022) Brain Modeling of Neurodegenerative Disorders. Editorial. Frontiers Neuroinformatics IF-2021 4.757
3. Schirner, Domide, Perdikis, Triebkorn, Stefanovski, Pai, Prodan, Valean, Palmer, Langford, Blickensdörfer, van der Vlag, Diaz-Pier, Peyser, Woodman, Zehl, Fousek, Petkoski, Kusch, Hashemi, Marinazzo, Mangin, Flöel, Akintoye, Stahl, Deco, McIntosh, Hilgetag, Morgan, Schuller, Upton, McMurtrie, Dickscheid, Bjaalie, Amunts, Mersmann, Jirsa, **Ritter**. Brain Simulation as a Cloud Service: The Virtual Brain on the European Research Platform EBRAINS (2022) Neuroimage IF-2020 6.556
4. Schirner, Kong, Yeo, Deco, **Ritter** (2022) Dynamic primitives of brain network interaction. Neuroimage IF-2020 6.556
5. Triebkorn, Stefanovski, Dhindsa, Diaz-Cortes, Bey, Bülau, Pai, Spiegler, Jirsa, McIntosh, **Ritter** (2022) Alzheimer's Disease Neuroimaging Initaitive. Brain Simulation augments machine-learning-based classification of dementia Alzheimer's and Dementia Translational Research & Clinical Interventions IF-2021 7.099
6. Chettouf, Triebkorn, Daffertshofer, **Ritter** (2022) Effect of aging-related network changes on unimanual motor learning – an fMRI/EEG study. Human Brain Mapping IF-2020 5.038
7. Tyler Good, Michael Schirner, Kelly Shen, Petra Ritter, Pratik Mukherjee, Brain Levine, and Anthony McIntosh (2021) Personalized connectome-based modeling in

patients with semi-acute phase mild TBI: relationship to acute neuroimaging and 6-month follow-up. eNeuro IF-2020 4.081

8. Arabyazd, Shen, Wang, Hofmann-Apitius, Ritter, The Alzheimer's Disease Neuroimaging Initiative, McIntosh, Battaglia, Jirsa. Virtual connectomic datasets in dementia and Alzheimer's Disease using whole-brain network dynamics modeling eNeuro IF-2019: 3.544
9. Stefanovski, Meier, Pai, Triebkorn, Lett, Martin, Bülau, Hofmann-Apitius, Solodkin, McIntosh, Ritter (2021). Bridging Scales in Alzheimer's disease: Biological framework for brain simulation with The Virtual Brain. Frontiers in Neuroinformatics IF-2021: 4.76
10. Babiloni, Bonanni, Bujan, Del Percio, Egan, Ferri, Frisoni, Güntekin, Kramberger, Jelic, Jeong, Tucci, Lizio, Nobili, Ritter, Sorcellli, Teipel, Puce, Dirk, Valdes-Sosa, Valdes-Sosa, Evans, Yener (2021) EEG measures for clinical research in major vascular cognitive impairment: Recommendations by an Expert Panel. Neurobiology of Aging. IF-2020: 4.673
11. Babiloni, Katarzyna Blinowska, Bonanni, Cichocki, De Haan, del Percio, Dubois, Epelbaum, Escudero, Defrutos-Lucas, Fernández, Frisoni, Guntekin, Hajos, Hampel, Ifeachor, Kaminski, Kilborn, Kumar, Johnsen, Johannsson, Jeong, Lam, Lizio, Lopez, Lopez, Lucey, Maestú, Mc Geown, McKeith, Moretti, Nobili, Noce, Olichney, Onofrj, Parra-Rodriguez, Rajji, Ritter, Osorio, Stocchi, Struzik, Tarnanas, Teipel, Taylor, Tucci, Weiergräber, Yener, Young-Pearse, Drinkenburg, Randall, Murphy, Azami, Bennys, Ferri, Harrington, Xianghong, Jelic, Kavcic, Jiang, Bujan, Farina, Lim, Whitlow, Soricelli, Fargo, Edelmayer, Carrillo, Valdes Sosa (2021) Measures of Resting State EEG Rhythms for Clinical Trials in Alzheimer's Disease Patients: Recommendations of an Expert Panel. Alzheimer's and Dementia IF-2021: 21.566
12. Costa Klein, Ettinger, Schirner, Ritter, Rujescu, Falkai, Koutsouleris, Kambeitz-Ilankovic, Kambeitz. (2020) Brain Network Simulations Indicate Effects of Neuregulin-1 Genotype on Excitation-Inhibition Balance in Cortical Dynamics. Cerebral Cortex. doi: 10.1093/cercor/bhaa339 IF-2020 5.043
13. Wachtler T, Bauer P, Denker M, Grün S, Hanke M, Klein J, Oeltze-Jafra S, Ritter P, Rotter S, Scherberger H, Stein A, Witte O (2020) NFDI-Neuro: Building a community for neuroscience research data management in Germany. Neuroforum IF-2021 0.550
14. Klingner, Ritter, Brodoehl, Gaser, Scherag, Guelmar, Rosenow, Ziemann, Witte (2020) Research Data Management in Clinical Neuroscience. Neuroforum IF-2021 0.550
15. Scheibe, Triebkorn, Lange, Neumann, Scheel, Furth, Köhnlein, Schultze-Amberger, Kühn, Ritter, Meisel (2020) Movement disorders after hypoxic-ischemic encephalopathy following cardiac arrest in adults. European Journal of Neurology IF-2020 6.089
16. Palesi F, Lorenzi RM, Casellato C, Ritter P, Jirsa V, Gandini Wheeler-Kingshott CAM, D'Angelo E (2020) The importance of cerebellar connectivity on simulated brain dynamics. Frontiers Cellular Neuroscience. IF-2020 4.86
17. Battaglia, Boudou, Hansen, Chettouf, Daffertshofer, McIntosh, Zimmermann, Ritter*, Jirsa* (2020) Functional Connectivity Dynamics of the Resting State across the Human Adult Lifespan Neuroimage *Shared Senior authorship IF-2020: 6.556
18. Aerts, Schirner, Dhollander, Jeurissen, Achten, Van Roost, Ritter, Marinazzo (2020) Modeling brain dynamics after tumor resection using The Virtual Brain. Neuroimage IF-2020: 6.556
19. Chettouf, Rueda-Delgado, de Vries, Ritter, Daffertshofer (2020) Are unimanual movements bilateral? Neuroscience & Biobehavioral Reviews IF-2020: 8.989
20. Poldrack, Feingold, Frank, Gleeson, de Hollander, Huys, Love, Markiewitcz, Moran, Ritter, Turner, Yarkoni, Zhang, Cohen. (2019) The importance of standards for sharing of computational models and data. Computational Brain & Behavior

21. Carpentier, McCulloch, Brown, Ritter, Wang, Salimpoor, Shen, McIntosh. (2019) Complexity matching: brain signals mirror environment information patterns during music listening and reward. Journal Cognitive Neuroscience IF-2020: 3.468
22. Shen K, Bezgin G, Schirner M, Ritter P, Everling S, McIntosh AR (2019) A macaque connectome for large-scale network simulations in TheVirtualBrain Nature Scientific Data IF-2020: 6.444
23. Stefanovski, Triebkorn, Spiegler, Diaz-Cortes, Solodkin, Jirsa, McIntosh, Ritter; for the Alzheimer's Disease Neuroimaging Initiative (2019). Linking molecular pathways and large-scale computational modeling to assess candidate disease mechanisms and pharmacodynamics in Alzheimer's disease. Frontiers Computational Neuroscience IF-2021: 2.990
24. Schirner, McIntosh, Jirsa, Deco, Ritter (2018) Inferring multi-scale neural mechanisms with brain network modelling. eLife IF-2016: 8.140
25. Aerts, Schirner, Jeurissen, Van Roost, Achten, Ritter, Marinazzo (2018) Modeling brain dynamics in brain tumor patients using The Virtual Brain. eNeuro IF-2021: 4.081
26. Zimmermann, Perry, Breakspear, Schirner, Sachdev, Wen, Kochan, Mapstone, Ritter, McIntosh, Solodkin (2018) Differentiation of Alzheimer's disease based on local and global parameters in personalized Virtual Brain models. Neuroimage Clinical IF-2021: 6.556
27. Zimmermann, Griffiths, Schirner, Ritter, McIntosh (2018) Subject-specificity of the correlation between large-scale structural and functional connectivity. Network Neuroscience IF-2021 4.640
28. Glomb, Ponce-Alvarez, Gilson, Ritter, Deco (2017) Stereotypical modulations in dynamic functional connectivity explained by changes in BOLD variance. Neuroimage IF-2021: 6.556
29. Deco, Kringelbach, Jirsa, Ritter (2017) The dynamics of resting fluctuations in the brain: metastability and its dynamical core. Scientific Reports IF-2015: 5.228
30. Glomb, Ponce-Alvarez, Gilson, Ritter, Deco (2017) Resting State Networks in empirical and simulated dynamic functional connectivity. Neuroimage IF-2021: 6.556
31. Hay, Ritter, Lobaugh, McIntosh (2017) Multiregional Integration in the Brain during Resting-state fMRI Activity. Plos Computational Biology IF-2021: 4.475
32. Bezgin, Solodkin, Bakker, Ritter, McIntosh (2017) Mapping complementary features of cross-species structural connectivity to construct realistic "Virtual Brains" Human Brain Mapping IF-2021: 5.038
33. Proix, Spiegler, Schirner, Rothmeier, Ritter, Jirsa (2016) How do parcellation size and short-range connectivity affect dynamics in large-scale brain network models? Neuroimage IF-2014: 6.35
34. Stefanovski, Ghani, McIntosh, Ritter (2016) Linking connectomics and dynamics in the human brain: Big data need big theories! Neuroforum.
35. Saggio ML, Ritter P, Jirsa V (2016) Analytical Operations Relate Structural and Functional Connectivity in the Brain. Plos One IF-2014: 3.234
36. Demirtas, Tornador, Falcon, Lopez-Sola, Hernandez-Ribas, Pujol, Menchon, Ritter, Cardoner, Soriano-Mas, Deco 2016 Dynamic functional connectivity reveals altered variability in functional connectivity among patients with major depressive disorder. Human Brain Mapping 37(8):2918-30 IF-2014: 5.969
37. Zimmermann, Ritter, Shen, Rothmeier, Schirner, McIntosh (2016) Structural Architecture Supports Functional Organization in the Human Aging Brain at a Region-wise and Network Level. Human Brain Mapping IF-2014: 5.969

38. Gilson, Moreno-Bote, Ponce-Alvarez, Ritter, Deco (2016) Estimation of Directed Effective Connectivity from fMRI Functional Connectivity Hints at Asymmetries in Cortical Connectome. PLoS Computational Biology IF-2014: 4.62
39. Kringelbach, McIntosh, Ritter, Jirsa, Deco (2015) The rediscovery of slowness: exploring the timing of cognition. Trends in Cognitive Science 19(10):616-28 IF-2014: 21.965
40. Schirner, M., S. Rothmeier, V. Jirsa, A. R. McIntosh and Ritter, P. (2015). An automated pipeline for constructing personalised virtual brains from multimodal neuroimaging data. Neuroimage. IF-2014: 6.357
41. Becker, R., S. Knock, P. Ritter*, V. Jirsa* (2015). Relating alpha power and phase to population firing and hemodynamic activity using a thalamo-cortical neural mass model PLoS Computational Biology.*Shared Senior Authorship IF-2014: 4.62
42. Ritter, P., J. Born, M. Brecht, H. R. Dinse, U. Heinemann, B. Pleger, D. Schmitz, S. Schreiber, A. Villringer and R. Kempter (2015). "State-dependencies of learning across brain scales." Front Comput Neurosci 9. IF-2014: 2.201
43. Matzke H, Schirner M, Vollbrecht D, Rothmeier S, Llarena A, Rojas R, Domide L, Mersmann J, Solodkin A, Jirsa V, McIntosh AR, Ritter P (2015). TVB-EduPack - An interactive learning and scripting platform for The Virtual Brain. Frontiers Neuroinformatics IF-2014: 3.262
44. Ritter P, Jirsa VK, McIntosh AR, Breakspear M. Editorial: State-dependent brain computation. Front Comput Neurosci. 2015 Jan 9:77. IF-2014: 2.201
45. Kovacevic, N., P. Ritter, et al. (2015). "'My Virtual Dream': a new avenue for Neuroscience study of collective neurofeedback in an immersive art environment " Plos ONE. IF-2014: 3.234
46. Roy, D., R. Sigala, M. Breakspear, A. R. McIntosh, V. K. Jirsa, G. Deco and P. Ritter (2014). "Using the Virtual Brain to Reveal the Role of Oscillations and Plasticity in Shaping Brain's Dynamical Landscape." Brain Connect 4(10),791-811 IF-2014: 5.263
47. Sigala, R., S. Haufe, D. Roy, H. R. Dinse and P. Ritter (2014). "The role of alpha-rhythm states in perceptual learning: insights from experiments and computational models." Front Comput Neurosci 8: 36. IF-2014: 2.201
48. Freyer, F., Becker, R., Dinse, H., Ritter, P. (2013). State-dependent perceptual learning. J. Neuroscience 33(7):2900-7. IF-2011: 7.115
49. Ritter, P., M. Schirner, A. R. McIntosh and V. K. Jirsa (2013). "The virtual brain integrates computational modeling and multimodal neuroimaging." Brain Connect 3(2): 121-145. IF-2014: 5.263
50. Freyer, F., Roberts, J. A., Ritter, P., & Breakspear, M. (2012). A canonical model of multistability and scale-invariance in biological systems. PLoS Computational Biology, 8(8) IF-2011: 5.215
51. Freyer F, Reinacher M, Nolte G, Dinse HR, Ritter P (2012) Short-term repetitive sensory stimulation leads to changes in alpha-band resting-state functional connectivity – implications for treatment of sensorimotor decline. Frontiers in Human Neuroscience 6:144 IF-2015: 3.626
52. Becker R, Reinacher M, Freyer F, Villringer A, Ritter P. (2011) How ongoing neuronal oscillations account for variability of evoked fMRI responses J. Neuroscience 31(30):11016-27 IF-2011: 7.115
53. Freyer F, Roberts JA, Becker R, Robinson P, Ritter P, Breakspear M (2011) Biophysical mechanisms of multistability in resting-state cortical rhythms. J. Neuroscience 31(17):6353-61 IF-2011: 7.115
54. Schultze-Kraft M, Becker R, Breakspear M, Ritter P, (2010) Exploiting the potential of three dimensional spatial wavelet analysis to explore the nesting of oscillations and spatial variance in simultaneous EEG-fMRI data. Progress in Biophysics and Molecular Biology. 105(1-2):67-79 IF-2010: 3.964

55. Terry, JR, Ritter P, Daffertshofer A, (2010) Progress in Biophysics and Molecular Biology. Editorial. BrainModes: The role of neuronal oscillations in health and disease. 105(1-2):1-4 IF-2009: 3.992
56. Freyer F, Aquino K, Robinson P, Ritter P, Breakspear M. (2009) Non-Gaussian statistics in temporal fluctuations of spontaneous cortical activity. J. Neuroscience 29(26): 8512-24 IF-2009: 7.178
57. Reinacher M, Becker R, Villringer A, Ritter P. (2009) Oscillatory brain states interact with late cognitive components of the somatosensory evoked potential. J Neurosci Methods 183(1):49-56 IF-2009: 2.295
58. Freyer, Becker, Anami, Curio, Villringer, Ritter (2009) Ultrahigh-frequency EEG during fMRI: Pushing the limits of imaging-artifact correction. Neuroimage 48(1):94-108 IF-2009: 5.739
59. Ritter P, Moosmann M, Villringer A. (2009) Rolandic Alpha and Beta EEG Rhythms' Strengths are Inversely Related to fMRI-BOLD Signal in Primary Somatosensory and Motor Cortex. Human Brain Mapping 30(4):1168-87 IF-2009: 6.256
60. Ritter P & Becker R, (2009) Detecting Alpha Rhythm Phase Reset by Phase Sorting: Caveats to Consider, Neuroimage 47(1):1-4 IF-2009: 5.739
61. Nierhaus T, Schön T, Becker R, Ritter P, Villringer A. (2009) Background and Evoked Activity and ist Interaction in the Human Brain. Journal of Magnetic Resonance Imaging. 27(8):1140-50 IF-2009: 2.026
62. Breakspear M., Daffertshofer A, Ritter P, (2009) Editorial. Brain Modes: A principled approach to modelling and measuring large-scale neuronal activity. J. Neurosci Methods.183(1):1-4 IF-2009: 2.295
63. Ritter P, Freyer F, Curio G, Villringer A. (2008) High-frequency (600 Hz) population spikes in human EEG delineate thalamic and cortical activation sites. Neuroimage 42(2):483-90. IF-2008: 7.168
64. Schubert R, Ritter P, Wüstenberg T, Preuschhof C, Curio G, Sommer W, Villringer A. (2008) Simultaneous EEG-fMRI reveals correlation of SEPs with BOLD signal in S1 during spatial attention. Cerebral Cortex. IF-2008: 5.907
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