Jana Maria Hutter

List of Publications by Year
in descending order

89 papers	3,266 citations	218677 26 h-index	223800 46 g-index
105 all docs	105 docs citations	105 times ranked	2848 citing authors

#	Article	IF	Citations
1	The developing human connectome project: A minimal processing pipeline for neonatal cortical surface reconstruction. NeuroImage, 2018, 173, 88-112.	4.2	315
2	A dedicated neonatal brain imaging system. Magnetic Resonance in Medicine, 2017, 78, 794-804.	3.0	233
3	Multimodal surface matching with higher-order smoothness constraints. NeuroImage, 2018, 167, 453-465.	4.2	219
4	Complex diffusion-weighted image estimation via matrix recovery under general noise models. NeuroImage, 2019, 200, 391-404.	4.2	184
5	Automated processing pipeline for neonatal diffusion MRI in the developing Human Connectome Project. NeuroImage, 2019, 185, 750-763.	4.2	127
6	Threeâ€dimensional motion corrected sensitivity encoding reconstruction for multiâ€shot multiâ€slice MRI: Application to neonatal brain imaging. Magnetic Resonance in Medicine, 2018, 79, 1365-1376.	3.0	108
7	Self-gated MRI motion modeling for respiratory motion compensation in integrated PET/MRI. Medical Image Analysis, 2015, 19, 110-120.	11.6	103
8	Construction of a neonatal cortical surface atlas using Multimodal Surface Matching in the Developing Human Connectome Project. NeuroImage, 2018, 179, 11-29.	4.2	83
9	Integrated and efficient diffusion-relaxometry using ZEBRA. Scientific Reports, 2018, 8, 15138.	3.3	82
10	Combined diffusionâ€relaxometry MRI to identify dysfunction in the human placenta. Magnetic Resonance in Medicine, 2019, 82, 95-106.	3.0	74
11	Timeâ€efficient and flexible design of optimized multishell HARDI diffusion. Magnetic Resonance in Medicine, 2018, 79, 1276-1292.	3.0	72
12	Sensitivity Encoding for Aligned Multishot Magnetic Resonance Reconstruction. IEEE Transactions on Computational Imaging, 2016, 2, 266-280.	4.4	65
13	Impaired development of the cerebral cortex in infants with congenital heart disease is correlated to reduced cerebral oxygen delivery. Scientific Reports, 2017, 7, 15088.	3.3	60
14	Multiâ€modal functional MRI to explore placental function over gestation. Magnetic Resonance in Medicine, 2019, 81, 1191-1204.	3.0	60
15	Development of human white matter pathways in utero over the second and third trimester. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	55
16	Heterogeneity in Brain Microstructural Development Following Preterm Birth. Cerebral Cortex, 2020, 30, 4800-4810.	2.9	54
17	Placenta microstructure and microcirculation imaging with diffusion MRI. Magnetic Resonance in Medicine, 2018, 80, 756-766.	3.0	53
18	T2* Placental Magnetic Resonance Imaging in Preterm Preeclampsia. Hypertension, 2020, 75, 1523-1531.	2.7	52

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19	A framework for multi-component analysis of diffusion MRI data over the neonatal period. NeuroImage, 2019, 186, 321-337.	4.2	47
20	Combined diffusionâ€rrelaxometry microstructure imaging: Current status and future prospects. Magnetic Resonance in Medicine, 2021, 86, 2987-3011.	3.0	46
21	Modelling brain development to detect white matter injury in term and preterm born neonates. Brain, 2020, 143, 467-479.	7.6	44
22	Scattered slice SHARD reconstruction for motion correction in multi-shell diffusion MRI. NeuroImage, 2021, 225, 117437.	4.2	44
23	Development of Microstructural and Morphological Cortical Profiles in the Neonatal Brain. Cerebral Cortex, 2020, 30, 5767-5779.	2.9	42
24	The Developing Human Connectome Project Neonatal Data Release. Frontiers in Neuroscience, 2022, 16, .	2.8	42
25	Preterm birth alters the development of cortical microstructure and morphology at term-equivalent age. NeuroImage, 2021, 243, 118488.	4.2	40
26	Reduction of respiratory motion artifacts for free-breathing whole-heart coronary MRA by weighted iterative reconstruction. Magnetic Resonance in Medicine, 2015, 73, 1885-1895.	3.0	39
27	Cortical morphology at birth reflects spatiotemporal patterns of gene expression in the fetal human brain. PLoS Biology, 2020, 18, e3000976.	5.6	38
28	Quiet echo planar imaging for functional and diffusion MRI. Magnetic Resonance in Medicine, 2018, 79, 1447-1459.	3.0	35
29	Self-gated Radial MRI for Respiratory Motion Compensation on Hybrid PET/MR Systems. Lecture Notes in Computer Science, 2013, 16, 17-24.	1.3	33
30	A deformable model for the reconstruction of the neonatal cortex. , 2017, , .		29
31	High-resolution 3D whole-heart coronary MRA: a study on the combination of data acquisition in multiple breath-holds and 1D residual respiratory motion compensation. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2014, 27, 435-443.	2.0	28
32	Systematic evaluation of velocityâ€selective arterial spin labeling settings for placental perfusion measurement. Magnetic Resonance in Medicine, 2020, 84, 1828-1843.	3.0	23
33	Slice-level diffusion encoding for motion and distortion correction. Medical Image Analysis, 2018, 48, 214-229.	11.6	22
34	Data-Driven multi-Contrast spectral microstructure imaging with InSpect: INtegrated SPECTral component estimation and mapping. Medical Image Analysis, 2021, 71, 102045.	11.6	22
35	Placenta Maps: In Utero Placental Health Assessment of the Human Fetus. IEEE Transactions on Visualization and Computer Graphics, 2017, 23, 1612-1623.	4.4	21
36	Higher Order Spherical Harmonics Reconstruction of Fetal Diffusion MRI With Intensity Correction. IEEE Transactions on Medical Imaging, 2020, 39, 1104-1113.	8.9	20

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37	Perfusion and apparent oxygenation in the human placenta (PERFOX). Magnetic Resonance in Medicine, 2020, 83, 549-560.	3.0	20
38	Learning Compact <inline-formula> <tex-math notation="LaTeX">${q}$ </tex-math> </inline-formula>-Space Representations for Multi-Shell Diffusion-Weighted MRI. IEEE Transactions on Medical Imaging, 2019, 38, 834-843.	8.9	19
39	Phenotyping the Preterm Brain: Characterizing Individual Deviations From Normative Volumetric Development in Two Large Infant Cohorts. Cerebral Cortex, 2021, 31, 3665-3677.	2.9	19
40	A dataâ€driven approach to optimising the encoding for multiâ€shell diffusion MRI with application to neonatal imaging. NMR in Biomedicine, 2020, 33, e4348.	2.8	18
41	Highly undersampled peripheral Time-of-Flight magnetic resonance angiography: optimized data acquisition and iterative image reconstruction. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2015, 28, 437-446.	2.0	17
42	Investigating altered brain development in infants with congenital heart disease using tensor-based morphometry. Scientific Reports, 2020, 10, 14909.	3.3	17
43	Brain volumetry in fetuses that deliver very preterm: An MRI pilot study. NeuroImage: Clinical, 2021, 30, 102650.	2.7	17
44	Multi-Dimensional Flow-Preserving Compressed Sensing (MuFloCoS) for Time-Resolved Velocity-Encoded Phase Contrast MRI. IEEE Transactions on Medical Imaging, 2015, 34, 400-414.	8.9	16
45	Foetal lung volumes in pregnant women who deliver very preterm: a pilot study. Pediatric Research, 2020, 87, 1066-1071.	2.3	16
46	Antenatal thymus volumes in fetuses that delivered <32Âweeks' gestation: An MRI pilot study. Acta Obstetricia Et Gynecologica Scandinavica, 2021, 100, 1040-1050.	2.8	16
47	T2* placental MRI in pregnancies complicated with fetal congenital heart disease. Placenta, 2021, 108, 23-31.	1.5	16
48	Optimizing maternal fat suppression with constrained imageâ€based shimming in fetal <scp>MR</scp>. Magnetic Resonance in Medicine, 2019, 81, 477-485.	3.0	14
49	Reduced structural connectivity in cortico-striatal-thalamic network in neonates with congenital heart disease. NeuroImage: Clinical, 2020, 28, 102423.	2.7	14
50	The effect of maternal position on venous return for pregnant women during MRI. NMR in Biomedicine, 2021, 34, e4475.	2.8	14
51	Placental magnetic resonance imaging in chronic hypertension: A case-control study. Placenta, 2021, 104, 138-145.	1.5	13
52	APPLAUSE: Automatic Prediction of PLAcental health via U-net Segmentation and statistical Evaluation. Medical Image Analysis, 2021, 72, 102145.	11.6	13
53	Parental age effects on neonatal white matter development. NeuroImage: Clinical, 2020, 27, 102283.	2.7	12
54	In Utero Diffusion MRI. Topics in Magnetic Resonance Imaging, 2019, 28, 255-264.	1.2	11

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55	Neonatal multi-modal cortical profiles predict 18-month developmental outcomes. Developmental Cognitive Neuroscience, 2022, 54, 101103.	4.0	11
56	Predicting age and clinical risk from the neonatal connectome. NeuroImage, 2022, 257, 119319.	4.2	11
57	T2* relaxometry to characterize normal placental development over gestation in-vivo at 3T. Wellcome Open Research, 0, 4, 166.	1.8	10
58	On the need for bundle-specific microstructure kernels in diffusion MRI. NeuroImage, 2020, 208, 116460.	4.2	9
59	Free-Breathing Whole-Heart Coronary MRA: Motion Compensation Integrated into 3D Cartesian Compressed Sensing Reconstruction. Lecture Notes in Computer Science, 2013, 16, 575-582.	1.3	8
60	Multi-Channel 4D Parametrized Atlas of Macro- and Microstructural Neonatal Brain Development. Frontiers in Neuroscience, 2021, 15, 661704.	2.8	8
61	Acquiring and Predicting Multidimensional Diffusion (MUDI) Data: An Open Challenge. Mathematics and Visualization, 2020, , 195-208.	0.6	8
62	Deformable Slice-to-Volume Registration for Reconstruction of Quantitative T2* Placental and Fetal MRI. Lecture Notes in Computer Science, 2020, , 222-232.	1.3	8
63	Virtual angiography using CFD simulations based on patient-specific parameter optimization. , 2012, , .		7
64	Antenatal diagnosis of chorioamnionitis: A review of the potential role of fetal and placental imaging. Prenatal Diagnosis, 2022, 42, 1049-1058.	2.3	7
65	CRAFT (Cerclage after full dilatation caesarean section): protocol of a mixed methods study investigating the role of previous in-labour caesarean section in preterm birth risk. BMC Pregnancy and Childbirth, 2020, 20, 698.	2.4	6
66	Spatio-Temporal Atlas of Normal Fetal Craniofacial Feature Development andÂCNN-Based Ocular Biometry forÂMotion-Corrected Fetal MRI. Lecture Notes in Computer Science, 2021, , 168-178.	1.3	6
67	The use of functional placental magnetic resonance imaging for assessment of the placenta after prolonged preterm rupture of the membranes in vivo: A pilot study. Acta Obstetricia Et Gynecologica Scandinavica, 2021, 100, 2244-2252.	2.8	6
68	Passive time-multiplexing super-resolved technique for axially moving targets. Applied Optics, 2013, 52, C11.	1.8	5
69	A realistic digital phantom for perfusion C-arm CT based on MRI data. , 2013, , .		5
70	An efficient sequence for fetal brain imaging at 3T with enhanced T₁ contrast and motion robustness. Magnetic Resonance in Medicine, 2018, 80, 137-146.	3.0	5
71	InSpect: INtegrated SPECTral Component Estimation and Mapping for Multi-contrast Microstructural MRI. Lecture Notes in Computer Science, 2019, , 755-766.	1.3	5
72	Diffusion Tensor Driven Image Registration: A Deep Learning Approach. Lecture Notes in Computer Science, 2020, , 131-140.	1.3	5

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73	Dynamic Field Mapping and Motion Correction Using Interleaved Double Spin-Echo Diffusion MRI. Lecture Notes in Computer Science, 2017, , 523-531.	1.3	5
74	Visual assessment of the placenta in antenatal magnetic resonance imaging across gestation in normal and compromised pregnancies: Observations from a large cohort study. Placenta, 2022, 117, 29-38.	1.5	5
75	The developing brain structural and functional connectome fingerprint. Developmental Cognitive Neuroscience, 2022, 55, 101117.	4.0	5
76	Innerâ€volume echo volumar imaging (<scp>IVEVI</scp>) for robust fetal brain imaging. Magnetic Resonance in Medicine, 2018, 80, 279-285.	3.0	4
77	Low-Rank and Sparse Matrix Decomposition for Compressed Sensing Reconstruction of Magnetic Resonance 4D Phase Contrast Blood Flow Imaging (LoSDeCoS 4D-PCI). Lecture Notes in Computer Science, 2013, 16, 558-565.	1.3	4
78	A Framework for Calculating Time-Efficient Diffusion MRI Protocols for Anisotropic IVIM and An Application in the Placenta. Mathematics and Visualization, 2019, , 251-263.	0.6	3
79	Multi-channel Registration for Diffusion MRI: Longitudinal Analysis for the Neonatal Brain. Lecture Notes in Computer Science, 2020, , 111-121.	1.3	3
80	Effects of gestational age at birth on perinatal structural brain development in healthy termâ€born babies. Human Brain Mapping, 2022, 43, 1577-1589.	3.6	3
81	Multi-dimensional flow-adapted compressed sensing (MDFCS) for time-resolved velocity-encoded Phase Contrast MRA. , 2013, , .		2
82	A dedicated neonatal brain imaging system. Magnetic Resonance in Medicine, 2017, 78, C1-C1.	3.0	2
83	An efficient and combined placental â€ADC acquisition in pregnancies with and without preâ€eclampsia. Magnetic Resonance in Medicine, 2021, 86, 2684-2691.	3.0	2
84	Assessment of the fetal thymus gland: Comparing MRI-acquired thymus volumes with 2D ultrasound measurements. European Journal of Obstetrics, Gynecology and Reproductive Biology, 2021, 264, 1-7.	1.1	2
85	Cardiac and placental imaging (CARP) in pregnancy to assess aetiology of preeclampsia. Placenta, 2022, 122, 46-55.	1.5	2
86	Uncertainty-Aware Deep Learning Based Deformable Registration. Lecture Notes in Computer Science, 2021, , 54-63.	1.3	1
87	Anisotropy in the Human Placenta in Pregnancies Complicated by Fetal Growth Restriction. Mathematics and Visualization, 2021, , 263-276.	0.6	1
88	Data-Driven Multi-contrast Spectral Microstructure Imaging with InSpect. Lecture Notes in Computer Science, 2020, , 375-385.	1.3	1
89	Predicting Preterm Birth Using Multimodal Fetal Imaging. Lecture Notes in Computer Science, 2021, , 284-293.	1.3	0