# David C Van Essen

List of Publications by Year
in descending order



| | | 6613 | 14759 |
|---|---|---|---|
| 140 | 45,015 | 79 | 127 |
| papers | citations | h-index | g-index |

| | | | |
|---|---|---|---|
| 159 | 159 | 159 | 25448 |
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The WU-Minn Human Connectome Project: An overview. NeuroImage, 2013, 80, 62-79. | 4.2 | 4,282 |
| 2 | The minimal preprocessing pipelines for the Human Connectome Project. NeuroImage, 2013, 80, 105-124. | 4.2 | 4,042 |
| 3 | A multi-modal parcellation of human cerebral cortex. Nature, 2016, 536, 171-178. | 27.8 | 3,634 |
| 4 | A tension-based theory of morphogenesis and compact wiring in the central nervous system. Nature, 1997, 385, 313-318. | 27.8 | 1,527 |
| 5 | Resting-state fMRI in the Human Connectome Project. NeuroImage, 2013, 80, 144-168. | 4.2 | 1,367 |
| 6 | Function in the human connectome: Task-fMRI and individual differences in behavior. NeuroImage, 2013, 80, 169-189. | 4.2 | 1,259 |
| 7 | Mapping Human Cortical AreasIn VivoBased on Myelin Content as Revealed by T1- and T2-Weighted MRI. Journal of Neuroscience, 2011, 31, 11597-11616. | 3.6 | 1,185 |
| 8 | A Population-Average, Landmark- and Surface-based (PALS) atlas of human cerebral cortex. NeuroImage, 2005, 28, 635-662. | 4.2 | 1,062 |
| 9 | The visual field representation in striate cortex of the macaque monkey: Asymmetries, anisotropies, and individual variability. Vision Research, 1984, 24, 429-448. | 1.4 | 862 |
| 10 | Hierarchical organization and functional streams in the visual cortex. Trends in Neurosciences, 1983, 6, 370-375. | 8.6 | 856 |
| 11 | Advances in diffusion MRI acquisition and processing in the Human Connectome Project. NeuroImage, 2013, 80, 125-143. | 4.2 | 851 |
| 12 | The Human Connectome Project's neuroimaging approach. Nature Neuroscience, 2016, 19, 1175-1187. | 14.8 | 825 |
| 13 | Functional connectomics from resting-state fMRI. Trends in Cognitive Sciences, 2013, 17, 666-682. | 7.8 | 802 |
| 14 | A positive-negative mode of population covariation links brain connectivity, demographics and behavior. Nature Neuroscience, 2015, 18, 1565-1567. | 14.8 | 782 |
| 15 | Pushing spatial and temporal resolution for functional and diffusion MRI in the Human Connectome Project. NeuroImage, 2013, 80, 80-104. | 4.2 | 769 |
| 16 | Corticocortical connections of visual, sensorimotor, and multimodal processing areas in the parietal lobe of the macaque monkey. Journal of Comparative Neurology, 2000, 428, 112-137. | 1.6 | 750 |
| 17 | Temporally-independent functional modes of spontaneous brain activity. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 3131-3136. | 7.1 | 696 |
| 18 | Similar patterns of cortical expansion during human development and evolution. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13135-13140. | 7.1 | 588 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Comparative mapping of higher visual areas in monkeys and humans. Trends in Cognitive Sciences, 2004, 8, 315-324. | 7.8 | 584 |
| 20 | Parcellations and Hemispheric Asymmetries of Human Cerebral Cortex Analyzed on Surface-Based Atlases. Cerebral Cortex, 2012, 22, 2241-2262. | 2.9 | 561 |
| 21 | Defining functional areas in individual human brains using resting functional connectivity MRI. NeuroImage, 2008, 41, 45-57. | 4.2 | 541 |
| 22 | MSM: A new flexible framework for Multimodal Surface Matching. NeuroImage, 2014, 100, 414-426. | 4.2 | 532 |
| 23 | Canonical genetic signatures of the adult human brain. Nature Neuroscience, 2015, 18, 1832-1844. | 14.8 | 503 |
| 24 | Informatics and Data Mining Tools and Strategies for the Human Connectome Project. Frontiers in Neuroinformatics, 2011, 5, 4. | 2.5 | 484 |
| 25 | Best practices in data analysis and sharing in neuroimaging using MRI. Nature Neuroscience, 2017, 20, 299-303. | 14.8 | 482 |
| 26 | Surface-Based and Probabilistic Atlases of Primate Cerebral Cortex. Neuron, 2007, 56, 209-225. | 8.1 | 469 |
| 27 | Cortical High-Density Counterstream Architectures. Science, 2013, 342, 1238406. | 12.6 | 468 |
| 28 | Segregation of efferent connections and receptive field properties in visual area V2 of the macaque. Nature, 1985, 317, 58-61. | 27.8 | 434 |
| 29 | Mapping human visual cortex with positron emission tomography. Nature, 1986, 323, 806-809. | 27.8 | 413 |
| 30 | Mapping visual cortex in monkeys and humans using surface-based atlases. Vision Research, 2001, 41, 1359-1378. | 1.4 | 401 |
| 31 | Mapping of architectonic subdivisions in the macaque monkey, with emphasis on parieto-occipital cortex. Journal of Comparative Neurology, 2000, 428, 79-111. | 1.6 | 376 |
| 32 | A Predictive Network Model of Cerebral Cortical Connectivity Based on a Distance Rule. Neuron, 2013, 80, 184-197. | 8.1 | 372 |
| 33 | Trends and properties of human cerebral cortex: Correlations with cortical myelin content. NeuroImage, 2014, 93, 165-175. | 4.2 | 369 |
| 34 | Human Connectome Project informatics: Quality control, database services, and data visualization. NeuroImage, 2013, 80, 202-219. | 4.2 | 356 |
| 35 | Using Diffusion Tractography to Predict Cortical Connection Strength and Distance: A Quantitative Comparison with Tracers in the Monkey. Journal of Neuroscience, 2016, 36, 6758-6770. | 3.6 | 318 |
| 36 | Stereopsis Activates V3A and Caudal Intraparietal Areas in Macaques and Humans. Neuron, 2003, 39, 555-568. | 8.1 | 309 |

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| 37 | The representation of the visual field in parvicellular and magnocellular layers of the lateral geniculate nucleus in the macaque monkey. Journal of Comparative Neurology, 1984, 226, 544-564. | 1.6 | 302 |
| 38 | Topographic organization of the middle temporal visual area in the macaque monkey: Representational biases and the relationship to callosal connections and myeloarchitectonic boundaries. Journal of Comparative Neurology, 1987, 266, 535-555. | 1.6 | 296 |
| 39 | Measuring macroscopic brain connections in vivo. Nature Neuroscience, 2015, 18, 1546-1555. | 14.8 | 292 |
| 40 | Extending the Human Connectome Project across ages: Imaging protocols for the Lifespan Development and Aging projects. NeuroImage, 2018, 183, 972-984. | 4.2 | 290 |
| 41 | A Surface-Based Analysis of Hemispheric Asymmetries and Folding of Cerebral Cortex in Term-Born Human Infants. Journal of Neuroscience, 2010, 30, 2268-2276. | 3.6 | 285 |
| 42 | Response modulation by texture surround in primate area V1: Correlates of â€œpopoutâ€•under anesthesia. Visual Neuroscience, 1999, 16, 15-34. | 1.0 | 281 |
| 43 | Alterations in Brain Structure and Neurodevelopmental Outcome in Preterm Infants Hospitalized in Different Neonatal Intensive Care Unit Environments. Journal of Pediatrics, 2014, 164, 52-60.e2. | 1.8 | 279 |
| 44 | Hierarchical Heterogeneity across Human Cortex Shapes Large-Scale Neural Dynamics. Neuron, 2019, 101, 1181-1194.e13. | 8.1 | 271 |
| 45 | The impact of traditional neuroimaging methods on the spatial localization of cortical areas. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6356-E6365. | 7.1 | 255 |
| 46 | Cortical Folding Abnormalities in Autism Revealed by Surface-Based Morphometry. Journal of Neuroscience, 2007, 27, 11725-11735. | 3.6 | 253 |
| 47 | Windows on the brain: the emerging role of atlases and databases in neuroscience. Current Opinion in Neurobiology, 2002, 12, 574-579. | 4.2 | 246 |
| 48 | The Processing of Visual Shape in the Cerebral Cortex of Human and Nonhuman Primates: A Functional Magnetic Resonance Imaging Study. Journal of Neuroscience, 2004, 24, 2551-2565. | 3.6 | 238 |
| 49 | Heritability of fractional anisotropy in human white matter: A comparison of Human Connectome Project and ENIGMA-DTI data. NeuroImage, 2015, 111, 300-311. | 4.2 | 227 |
| 50 | Using temporal ICA to selectively remove global noise while preserving global signal in functional MRI data. NeuroImage, 2018, 181, 692-717. | 4.2 | 223 |
| 51 | Computerized Mappings of the Cerebral Cortex: A Multiresolution Flattening Method and a Surface-Based Coordinate System. Journal of Cognitive Neuroscience, 1996, 8, 1-28. | 2.3 | 222 |
| 52 | Multimodal surface matching with higher-order smoothness constraints. NeuroImage, 2018, 167, 453-465. | 4.2 | 219 |
| 53 | Neurons in monkey visual area V2 encode combinations of orientations. Nature Neuroscience, 2007, 10, 1313-1321. | 14.8 | 210 |
| 54 | Spatially constrained hierarchical parcellation of the brain with resting-state fMRI. NeuroImage, 2013, 76, 313-324. | 4.2 | 203 |

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|---|---|---|---|
| 55 | Quantitative assessment of prefrontal cortex in humans relative to nonhuman primates. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E5183-E5192. | 7.1 | 203 |
| 56 | A Domain-General Cognitive Core Defined in Multimodally Parcellated Human Cortex. Cerebral Cortex, 2020, 30, 4361-4380. | 2.9 | 197 |
| 57 | Surface-based approaches to spatial localization and registration in primate cerebral cortex. NeuroImage, 2004, 23, S97-S107. | 4.2 | 188 |
| 58 | The Lifespan Human Connectome Project in Aging: An overview. NeuroImage, 2019, 185, 335-348. | 4.2 | 186 |
| 59 | The relationship between spatial configuration and functional connectivity of brain regions. ELife, 2018, 7, . | 6.0 | 184 |
| 60 | The Lifespan Human Connectome Project in Development: A large-scale study of brain connectivity development in 5â€“21 year olds. NeuroImage, 2018, 183, 456-468. | 4.2 | 184 |
| 61 | The role of long-range connections on the specificity of the macaque interareal cortical network. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5187-5192. | 7.1 | 172 |
| 62 | Symmetry of Cortical Folding Abnormalities in Williams Syndrome Revealed by Surface-Based Analyses. Journal of Neuroscience, 2006, 26, 5470-5483. | 3.6 | 171 |
| 63 | The Mouse Cortical Connectome, Characterized by an Ultra-Dense Cortical Graph, Maintains Specificity by Distinct Connectivity Profiles. Neuron, 2018, 97, 698-715.e10. | 8.1 | 169 |
| 64 | Multiple processing streams in occipitotemporal visual cortex. Nature, 1994, 371, 151-154. | 27.8 | 165 |
| 65 | Neurite imaging reveals microstructural variations in human cerebral cortical gray matter. NeuroImage, 2018, 182, 488-499. | 4.2 | 164 |
| 66 | Cortical Parcellations of the Macaque Monkey Analyzed on Surface-Based Atlases. Cerebral Cortex, 2012, 22, 2227-2240. | 2.9 | 162 |
| 67 | Spatial Embedding and Wiring Cost Constrain the Functional Layout of the Cortical Network of Rodents and Primates. PLoS Biology, 2016, 14, e1002512. | 5.6 | 158 |
| 68 | Cortical connections of areas V3 and VP of macaque monkey extrastriate visual cortex. , 1997, 379, 21-47. | | 145 |
| 69 | The Human Connectome Project 7 Tesla retinotopy dataset: Description and population receptive field analysis. Journal of Vision, 2018, 18, 23. | 0.3 | 139 |
| 70 | Antibody labeling of functional subdivisions in visual cortex: Cat-301 immunoreactivity in striate and extrastriate cortex of the macaque monkey. Visual Neuroscience, 1990, 5, 67-81. | 1.0 | 131 |
| 71 | Cerebral cortical folding, parcellation, and connectivity in humans, nonhuman primates, and mice. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 26173-26180. | 7.1 | 130 |
| 72 | The Mind of a Mouse. Cell, 2020, 182, 1372-1376. | 28.9 | 127 |

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| 73 | Correspondences between retinotopic areas and myelin maps in human visual cortex. NeuroImage, 2014, 99, 509-524. | 4.2 | 117 |
| 74 | Computational Methods for Reconstructing and Unfolding the Cerebral Cortex. Cerebral Cortex, 1995, 5, 506-517. | 2.9 | 114 |
| 75 | The Human Connectome Project: A retrospective. NeuroImage, 2021, 244, 118543. | 4.2 | 114 |
| 76 | Comparing surface-based and volume-based analyses of functional neuroimaging data in patients with schizophrenia. NeuroImage, 2008, 41, 835-848. | 4.2 | 109 |
| 77 | The heritability of multi-modal connectivity in human brain activity. ELife, 2017, 6, . | 6.0 | 107 |
| 78 | Parcellating Cerebral Cortex: How Invasive Animal Studies Inform Noninvasive Mapmaking in Humans. Neuron, 2018, 99, 640-663. | 8.1 | 103 |
| 79 | Cortical cartography and Caret software. NeuroImage, 2012, 62, 757-764. | 4.2 | 102 |
| 80 | Ciftify: A framework for surface-based analysis of legacy MR acquisitions. NeuroImage, 2019, 197, 818-826. | 4.2 | 101 |
| 81 | Development and Evolution of Cerebral and Cerebellar Cortex. Brain, Behavior and Evolution, 2018, 91, 158-169. | 1.7 | 97 |
| 82 | Dynamic patterns of cortical expansion during folding of the preterm human brain. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3156-3161. | 7.1 | 94 |
| 83 | Comparison of cortical folding measures for evaluation of developing human brain. NeuroImage, 2016, 125, 780-790. | 4.2 | 92 |
| 84 | Accelerating the Evolution of Nonhuman Primate Neuroimaging. Neuron, 2020, 105, 600-603. | 8.1 | 92 |
| 85 | Neural activity in areas V1, V2 and V4 during free viewing of natural scenes compared to controlled viewing. NeuroReport, 1998, 9, 2153-2158. | 1.2 | 90 |
| 86 | Competition favouring inactive over active motor neurons during synapse elimination. Nature, 1987, 328, 422-426. | 27.8 | 89 |
| 87 | Ventral posterior visual area of the macaque: Visual topography and areal boundaries. Journal of Comparative Neurology, 1986, 252, 139-153. | 1.6 | 88 |
| 88 | Corticocortical and thalamocortical information flow in the primate visual system. Progress in Brain Research, 2005, 149, 173-185. | 1.4 | 88 |
| 89 | Cartography and Connectomes. Neuron, 2013, 80, 775-790. | 8.1 | 88 |
| 90 | Surface-Based Atlases of Cerebellar Cortex in the Human, Macaque, and Mouse. Annals of the New York Academy of Sciences, 2002, 978, 468-479. | 3.8 | 80 |

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| 91 | ConnectomeDBâ€"Sharing human brain connectivity data. NeuroImage, 2016, 124, 1102-1107. | 4.2 | 80 |
| 92 | Response profiles to texture border patterns in area V1. Visual Neuroscience, 2000, 17, 421-436. | 1.0 | 77 |
| 93 | Cortical structural abnormalities in very preterm children at 7years of age. NeuroImage, 2015, 109, 469-479. | 4.2 | 74 |
| 94 | A 2020 view of tension-based cortical morphogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 32868-32879. | 7.1 | 74 |
| 95 | The Brain Analysis Library of Spatial maps and Atlases (BALSA) database. NeuroImage, 2017, 144, 270-274. | 4.2 | 69 |
| 96 | Synaptic dynamics at the neuromuscular junction: Mechanisms and models. Journal of Neurobiology, 1990, 21, 223-249. | 3.6 | 67 |
| 97 | Towards HCP-Style macaque connectomes: 24-Channel 3T multi-array coil, MRI sequences and preprocessing. NeuroImage, 2020, 215, 116800. | 4.2 | 67 |
| 98 | Development of connections within and between areas V1 and V2 of macaque monkeys. , 1996, 372, 327-342. | | 60 |
| 99 | In vivo architectonics: A cortico-centric perspective. NeuroImage, 2014, 93, 157-164. | 4.2 | 60 |
| 100 | The nonhuman primate neuroimaging and neuroanatomy project. NeuroImage, 2021, 229, 117726. | 4.2 | 57 |
| 101 | Visual Activation in Prefrontal Cortex is Stronger in Monkeys than in Humans. Journal of Cognitive Neuroscience, 2004, 16, 1505-1516. | 2.3 | 55 |
| 102 | PARALLEL PROCESSING OF VISUAL INFORMATION. , 1990, , 103-128. | | 53 |
| 103 | Diffusion Tensor Model links to Neurite Orientation Dispersion and Density Imaging at high b-value in Cerebral Cortical Gray Matter. Scientific Reports, 2019, 9, 12246. | 3.3 | 49 |
| 104 | On navigating the human cerebral cortex: Response to â€˜in praise of tedious anatomyâ€™. NeuroImage, 2007, 37, 1050-1054. | 4.2 | 44 |
| 105 | Neuromuscular Synapse Elimination. , 1982, , 333-376. | | 44 |
| 106 | The human connectome in health and psychopathology. World Psychiatry, 2015, 14, 154-157. | 10.4 | 43 |
| 107 | Classification of temporal ICA components for separating global noise from fMRI data: Reply to Power. NeuroImage, 2019, 197, 435-438. | 4.2 | 40 |
| 108 | The Nervous System of the Leech. Scientific American, 1974, 230, 38-48. | 1.0 | 37 |

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| 109 | Blur into focus. Nature, 1990, 343, 419-420. | 27.8 | 36 |
| 110 | Brain/MINDS beyond human brain MRI project: A protocol for multi-level harmonization across brain disorders throughout the lifespan. NeuroImage: Clinical, 2021, 30, 102600. | 2.7 | 34 |
| 111 | Graded Variation in T1w/T2w Ratio during Adolescence: Measurement, Caveats, and Implications for Development of Cortical Myelin. Journal of Neuroscience, 2022, 42, 5681-5694. | 3.6 | 28 |
| 112 | Scaling of human brain size. Science, 2018, 360, 1184-1185. | 12.6 | 24 |
| 113 | Surface-Based Analyses of the Human Cerebral Cortex. , 1999, , 337-361. | | 24 |
| 114 | Comparative connectomics of the primate social brain. NeuroImage, 2021, 245, 118693. | 4.2 | 23 |
| 115 | Is Neuroscience FAIR? A Call for Collaborative Standardisation of Neuroscience Data. Neuroinformatics, 2022, 20, 507-512. | 2.8 | 23 |
| 116 | Minimal specifications for non-human primate MRI: Challenges in standardizing and harmonizing data collection. NeuroImage, 2021, 236, 118082. | 4.2 | 22 |
| 117 | Toward next-generation primate neuroscience: A collaboration-based strategic plan for integrative neuroimaging. Neuron, 2022, 110, 16-20. | 8.1 | 22 |
| 118 | Empirical transmit field bias correction of T1w/T2w myelin maps. NeuroImage, 2022, 258, 119360. | 4.2 | 20 |
| 119 | Lost in localization â€" But found with foci?!. NeuroImage, 2009, 48, 14-17. | 4.2 | 19 |
| 120 | Early postnatal myelin content estimate of white matter via T1w/T2w ratio. , 2015, 9417, . | | 19 |
| 121 | Anatomical evidence for the posterior boundary of area 2 in the macaque monkey. Somatosensory & Motor Research, 1999, 16, 382-390. | 0.9 | 18 |
| 122 | Towards a Quantitative, Probabilistic Neuroanatomy of Cerebral Cortex. Cortex, 2004, 40, 211-212. | 2.4 | 17 |
| 123 | Modelling white matter in gyral blades as a continuous vector field. NeuroImage, 2021, 227, 117693. | 4.2 | 15 |
| 124 | Genomic kinship construction to enhance genetic analyses in the human connectome project data. Human Brain Mapping, 2019, 40, 1677-1688. | 3.6 | 14 |
| 125 | A gyral coordinate system predictive of fibre orientations. NeuroImage, 2018, 176, 417-430. | 4.2 | 13 |
| 126 | Human Connectome Project. , 2013, , 1-4. | | 11 |

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| 127 | Anatomical variability, multi-modal coordinate systems, and precision targeting in the marmoset brain. NeuroImage, 2022, 250, 118965. | 4.2 | 10 |
| 128 | Competitive elimination of neuromuscular synapses. Nature, 1988, 331, 21-22. | 27.8 | 8 |
| 129 | Reply to Barton and Montgomery: A case for preferential prefrontal cortical expansion. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5-6. | 7.1 | 6 |
| 130 | Corticocortical connections of visual, sensorimotor, and multimodal processing areas in the parietal lobe of the macaque monkey. , 2000, 428, 112. | | 6 |
| 131 | Cause and effect in cortical folding. Nature Reviews Neuroscience, 2007, 8, 989-989. | 10.2 | 5 |
| 132 | Human Connectome Project. , 2015, , 1408-1411. | | 5 |
| 133 | Integrated software for surface-based analyses of cerebral cortex. NeuroImage, 2001, 13, 148. | 4.2 | 4 |
| 134 | Lack of topography in the spinal cord projection of the rabbit soleus muscle. Journal of Comparative Neurology, 1995, 351, 404-414. | 1.6 | 3 |
| 135 | Mapping of architectonic subdivisions in the macaque monkey, with emphasis on parieto-occipital cortex. , 2000, 428, 79. | | 3 |
| 136 | Visual cortex: cartography, connectivity, and concurrent processing. Current Biology, 1992, 2, 236. | 3.9 | 2 |
| 137 | Leslie Ungerleider, 1946â€“2020: Who, what, and where. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2102784118. | 7.1 | 1 |
| 138 | W. Maxwell Cowan (1931â€“2002). Nature, 2002, 418, 600-600. | 27.8 | 0 |
| 139 | Deciphering the human-brain connectome. SPIE Newsroom, 0, , . | 0.1 | 0 |
| 140 | A spatially embedded cortical connectome reveals complex transformations. Neuron, 2022, 110, 185-187. | 8.1 | 0 |