

# Øystein Sørensen

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*Associate Professor*

## Education

- 2011–2015 **PhD in Statistics**, *University of Oslo*, Oslo, Norway.  
○ Thesis: Rank and Measurement Error Modeling for Robust Genomic Inference  
○ Supervisors: Magne Thoresen and Arnaldo Frigessi
- 2006–2011 **MsC in Biological Physics**, *Norwegian University of Life Sciences*, Ås, Norway.  
○ Thesis: Modeling of Extracellular Potentials Measured by Microelectrode Arrays  
○ Thesis supervisor: Gaute Einevoll

## Experience

- 2018–  
present **Associate Professor**, *University of Oslo*, Oslo, Norway.  
○ Tenure-track position at the Center for Lifespan Changes in Brain and Cognition, Department of Psychology.
- 2018–2018 **Postdoctoral Researcher**, *University of Oslo*, Oslo, Norway.
- 2016–2018 **Data Scientist**, *NextBridge Analytics*, Oslo, Norway.  
○ Consultant implementing advanced analytics and machine learning solutions for clients across a wide range of sectors.
- 2014–2016 **Analyst/Data Scientist**, *Storebrand Life Insurance*, Oslo, Norway.  
○ Developed predictive analytics and data management solutions for the B2B market
- 2011–2014 **PhD Student**, *University of Oslo*, Oslo, Norway.  
○ Four-year position with 25 % teaching duties. Finished 6 months ahead of time.

## Editorial Boards

- 2021–present **Associate Editor**, *Journal of Open Source Software*.

## First Author Publications

- 2021 **Sørensen, Øystein; Walhovd, Kristine B.; Fjell, Anders M.**, *A Recipe for Accurate Estimation of Lifespan Brain Trajectories, Distinguishing Longitudinal and Cohort Effects*, *NeuroImage*. <http://doi.org/10.1016/j.neuroimage.2020.117596>.

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- 2021 **Sørensen, Øystein; Brandmaier, Andreas M.; Macià, Dídac; Ebmeier, Klaus; Ghisletta, Paolo; Kievit, Rogier A.; Mowinckel, Athanasia M.; Walhovd, Kristine B.; Westerhausen, Rene; Fjell, Anders**, *Meta-Analysis of Generalized Additive Models in Neuroimaging Studies*, NeuroImage. <http://doi.org/10.1016/j.neuroimage.2020.117416>.
- 2020 **Sørensen, Øystein; Westerhausen, Rene**, *From Observed Laterality to Latent Hemispheric Differences: Revisiting the Inference Problem*, Laterality. <http://doi.org/10.1080/1357650X.2020.1769124>.
- 2020 **Sørensen, Øystein; Crispino, Marta; Liu, Qinghua; Vitelli, Valeria**, *BayesMallows: An R Package for the Bayesian Mallows Model*, The R Journal. <http://doi.org/10.32614/RJ-2020-026>.
- 2019 **Sørensen, Øystein**, *Hdme: High-Dimensional Regression with Measurement Error*, Journal of Open Source Software. <http://doi.org/10.21105/joss.01404>.
- 2018 **Sørensen, Øystein; Hellton, Kristoffer Herland; Frigessi, Arnaldo; Thoresen, Magne**, *Covariate Selection in High-Dimensional Generalized Linear Models With Measurement Error*, Journal of Computational and Graphical Statistics. <http://doi.org/10.1080/10618600.2018.1425626>.
- 2017 **Vitelli, Valeria; Sørensen, Øystein; Crispino, Marta; Frigessi, Arnaldo; Arjas, Elja**, *Probabilistic Preference Learning with the Mallows Rank Model*, The Journal of Machine Learning Research.
- 2015 **Sørensen, Øystein; Frigessi, Arnaldo; Thoresen, Magne**, *Measurement Error in Lasso: Impact and Likelihood Bias Correction*, Statistica Sinica. <http://doi.org/ss.2013.180>.

## Non First Author Publications

- 2021 **Sederevičius, Donatas; Vidal-Piñeiro, Didac; Sørensen, Øystein; van Leemput, Koen; Iglesias, Juan Eugenio; Dalca, Adrian V.; Greve, Douglas N.; Fischl, Bruce; Bjørnerud, Atle; Walhovd, Kristine B.; Fjell, Anders M.**, *Reliability and Sensitivity of Two Whole-Brain Segmentation Approaches Included in FreeSurfer –ASEG and SAMSEG*, NeuroImage. <http://doi.org/10.1016/j.neuroimage.2021.118113>.

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- 2021 Fjell, Anders Martin; Grydeland, Hakon; Wang, Yunpeng; Amlien, Inge K; Bartres-Faz, David; Brandmaier, Andreas M; Düzel, Sandra; Elman, Jeremy; Franz, Carol E; Håberg, Asta K; Kietzmann, Tim C; Kievit, Rogier Andrew; Kremen, William S; Krogsrud, Stine K; Kühn, Simone; Lindenberger, Ulman; Macía, Didac; Mowinckel, Athanasia Monika; Nyberg, Lars; Panizzon, Matthew S; Solé-Padullés, Cristina; Sørensen, Øystein; Westerhausen, Rene; Walhovd, Kristine Beate, *The Genetic Organization of Longitudinal Subcortical Volumetric Change Is Stable throughout the Lifespan*, eLife. <http://doi.org/10.7554/eLife.66466>.
- 2021 Nyberg, Lars; Magnussen, Fredrik; Lundquist, Anders; Baaré, William; Bartrés-Faz, David; Bertram, Lars; Boraxbekk, C. J.; Brandmaier, Andreas M.; Drevon, Christian A.; Ebmeier, Klaus; Ghisletta, Paolo; Henson, Richard N.; Junqué, Carme; Kievit, Rogier; Kleemeyer, Maike; Knights, Ethan; Kühn, Simone; Lindenberger, Ulman; Penninx, Brenda W. J. H.; Pudas, Sara; Sørensen, Øystein; Vaqué-Alcázar, Lúcia; Walhovd, Kristine B.; Fjell, Anders M., *Educational Attainment Does Not Influence Brain Aging*, Proceedings of the National Academy of Sciences. <http://doi.org/10.1073/pnas.2101644118>.
- 2021 Grydeland, Håkon; Sederevičius, Donatas; Wang, Yunpeng; Bartrés-Faz, David; Bertram, Lars; Dobricic, Valerija; Düzel, Sandra; Ebmeier, Klaus P; Lindenberger, Ulman; Nyberg, Lars; Pudas, Sara; Sexton, Claire E; Solé-Padullés, Cristina; Sørensen, Øystein; Walhovd, Kristine B; Fjell, Anders M, *Self-Reported Sleep Relates to Microstructural Hippocampal Decline in  $\beta$ -Amyloid Positive Adults beyond Genetic Risk*, Sleep. <http://doi.org/10.1093/sleep/zsab110>.
- 2021 Vidal-Pineiro, Didac; Sneve, Markus H; Amlien, Inge K; Grydeland, Håkon; Mowinckel, Athanasia M; Roe, James M; Sørensen, Øystein; Nyberg, Lars H; Walhovd, Kristine B; Fjell, Anders M, *The Functional Foundations of Episodic Memory Remain Stable Throughout the Lifespan*, Cerebral Cortex. <http://doi.org/10.1093/cercor/bhaa348>.
- 2021 Roe, James M.; Vidal-Piñeiro, Didac; Sørensen, Øystein; Brandmaier, Andreas M.; Düzel, Sandra; Gonzalez, Hector A.; Kievit, Rogier A.; Knights, Ethan; Kühn, Simone; Lindenberger, Ulman; Mowinckel, Athanasia M.; Nyberg, Lars; Park, Denise C.; Pudas, Sara; Rundle, Melissa M.; Walhovd, Kristine B.; Fjell, Anders M.; Westerhausen, Rene, *Asymmetric Thinning of the Cerebral Cortex across the Adult Lifespan Is Accelerated in Alzheimer's Disease*, Nature Communications. <http://doi.org/10.1038/s41467-021-21057-y>.

- 2020 Vidal-Pineiro, Didac; Parker, Nadine; Shin, Jean; French, Leon; Grydeland, Håkon; Jackowski, Andrea P.; Mowinckel, Athanasia M.; Patel, Yash; Pausova, Zdenka; Salum, Giovanni; Sørensen, Øystein; Walhovd, Kristine B.; Paus, Tomas; Fjell, Anders M., *Cellular Correlates of Cortical Thinning throughout the Lifespan*, Scientific Reports. <http://doi.org/10.1038/s41598-020-78471-3>.
- 2020 Walhovd, Kristine B.; Bråthen, Anne Cecilie Sjøli; Panizzon, Matthew S.; Mowinckel, Athanasia M.; Sørensen, Øystein; de Lange, Ann-Marie G.; Krogsrud, Stine Kleppe; Håberg, Asta; Franz, Carol E.; Kremen, William S.; Fjell, Anders M., *Within-Session Verbal Learning Slope Is Predictive of Lifespan Delayed Recall, Hippocampal Volume, and Memory Training Benefit, and Is Heritable*, Scientific Reports. <http://doi.org/10.1038/s41598-020-78225-1>.
- 2020 Fjell, Anders M.; Sørensen, Øystein; Amlie, Inge K.; Bartrés-Faz, David; Brandmaier, Andreas M.; Buchmann, Nikolaus; Demuth, Ilja; Drevon, Christian A.; Düzel, Sandra; Ebmeier, Klaus P.; Ghisletta, Paolo; Idland, Ane-Victoria; Kietzmann, Tim C.; Kievit, Rogier A.; Kühn, Simone; Lindenberger, Ulman; Magnussen, Fredrik; Macià, Didac; Mowinckel, Athanasia M.; Nyberg, Lars; Sexton, Claire E.; Solé-Padullés, Cristina; Pudas, Sara; Roe, James M.; Sederevicius, Donatas; Suri, Sana; Vidal-Piñero, Didac; Wagner, Gerd; Watne, Leiv Otto; Westerhausen, René; Zsoldos, Enikő; Walhovd, Kristine B., *Poor Self-Reported Sleep Is Related to Regional Cortical Thinning in Aging but Not Memory Decline - Results From the Lifebrain Consortium*, Cerebral Cortex. <http://doi.org/10.1093/cercor/bhaa332>.
- 2020 Idland, Ane-Victoria; Sala-Llanch, Roser; Watne, Leiv Otto; Brækhus, Anne; Hansson, Oskar; Blennow, Kaj; Zetterberg, Henrik; Sørensen, Øystein; Walhovd, Kristine Beate; Wyller, Torgeir Bruun; Fjell, Anders Martin, *Biomarker Profiling beyond Amyloid and Tau: Cerebrospinal Fluid Markers, Hippocampal Atrophy, and Memory Change in Cognitively Unimpaired Older Adults*, Neurobiology of Aging. <http://doi.org/10.1016/j.neurobiolaging.2020.04.002>.

- 2020 Fjell, Anders M.; Sørensen, Øystein; Amlie, Inge K.; Bartrés-Faz, David; Bros, Didac Macià; Buchmann, Nikolaus; Demuth, Ilja; Drevon, Christian A.; Düzel, Sandra; Ebmeier, Klaus P.; Idland, Ane-Victoria; Kietzmann, Tim C.; Kievit, Rogier; Kühn, Simone; Lindenberger, Ulman; Mowinckel, Athanasia M.; Nyberg, Lars; Price, Darren; Sexton, Claire E.; Solé-Padullés, Cristina; Pudas, Sara; Sederevicius, Donatas; Suri, Sana; Wagner, Gerd; Watne, Leiv Otto; Westerhausen, René; Zsoldos, Enikő; Walhovd, Kristine B., *Self-Reported Sleep Relates to Hippocampal Atrophy across the Adult Lifespan: Results from the Lifebrain Consortium*, Sleep. <http://doi.org/10.1093/sleep/zsz280>.
- 2020 Gorbach, Tetiana; Pudas, Sara; Bartrés-Faz, David; Brandmaier, Andreas M.; Düzel, Sandra; Henson, Richard N.; Idland, Ane-Victoria; Lindenberger, Ulman; Bros, Didac Macià; Mowinckel, Athanasia M.; Solé-Padullés, Cristina; Sørensen, Øystein; Walhovd, Kristine B.; Watne, Leiv Otto; Westerhausen, René; Fjell, Anders M.; Nyberg, Lars, *Longitudinal Association between Hippocampus Atrophy and Episodic-Memory Decline in Non-Demented APOE E4 Carriers*, Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring. <http://doi.org/10.1002/dad2.12110>.
- 2020 Walhovd, Kristine B.; Fjell, Anders M.; Sørensen, Øystein; Mowinckel, Athanasia Monika; Reinbold, Céline Sonja; Idland, Ane-Victoria; Watne, Leiv Otto; Franke, Andre; Dobricic, Valerija; Kilpert, Fabian; Bertram, Lars; Wang, Yunpeng, *Genetic Risk for Alzheimer Disease Predicts Hippocampal Volume through the Human Lifespan*, Neurology Genetics. <http://doi.org/10.1212/NXG.0000000000000506>.
- 2019 Fjell, Anders M.; Sneve, Markus H.; Sederevicius, Donatas; Sørensen, Øystein; Krogsrud, Stine K.; Mowinckel, Athanasia M.; Walhovd, Kristine B., *Volumetric and Microstructural Regional Changes of the Hippocampus Underlying Development of Recall Performance after Extended Retention Intervals*, Developmental Cognitive Neuroscience. <http://doi.org/10.1016/j.dcn.2019.100723>.
- 2017 Asfaw, Derbachew; Vitelli, Valeria; Sørensen, Øystein; Arjas, Elja; Frigessi, Arnaldo, *Time-Varying Rankings with the Bayesian Mallows Model*, Stat. <http://doi.org/10.1002/sta4.132>.
- 2015 Wyller, Vegard Bruun; Sørensen, Øystein; Sulheim, Dag; Fagermoen, Even; Ueland, Thor; Mollnes, Tom Eirik, *Plasma Cytokine Expression in Adolescent Chronic Fatigue Syndrome*, Brain, Behavior, and Immunity. <http://doi.org/10.1016/j.bbi.2014.12.025>.

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- 2015 Asprusten, Tarjei Tørre; Fagermoen, Even; Sulheim, Dag; Skovlund, Eva; Sørensen, Øystein; Mollnes, Tom Eirik; Wyller, Vegard Bruun, *Study Findings Challenge the Content Validity of the Canadian Consensus Criteria for Adolescent Chronic Fatigue Syndrome*, Acta Paediatrica. <http://doi.org/10.1111/apa.12950>.

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## Preprints

- 2021 Sørensen, Øystein; Fjell, Anders M.; Walhovd, Kristine B., *Longitudinal Modeling of Age-Dependent Latent Traits with Generalized Additive Latent and Mixed Models*, arXiv:2105.02488 [stat].
- 2021 Vidal-Piñeiro, D.; Wang, Y.; Krogsrud, Sk; Amlie, Ik; Baaré, Wfc; Bartrés-Faz, D.; Bertram, L.; Brandmaier, A. M.; Drevon, Ca; Düzel, S.; Ebmeier, Kp; Henson, R. N.; Junque, C.; Kievit, R. A.; Kühn, S.; Leonardsen, E.; Lindenberger, U.; Madsen, Ks; Magnussen, F.; Mowinckel, Am; Nyberg, L.; Roe, Jm; Segura, B.; Smith, Sm; Sørensen, Ø; Suri, S.; Westerhausen, R.; Zalesky, A.; Zsoldos, E.; *flagship study of Ageing, the Australian Imaging Biomarkers and Lifestyle; Walhovd, Kb; Fjell, Am, Individual Variations in “Brain Age” Relate to Early Life Factors More than to Longitudinal Brain Change*, bioRxiv. <http://doi.org/10.1101/2021.02.08.428915>.
- 2020 Walhovd, Kristine B.; Fjell, Anders M.; Wang, Yunpeng; Amlie, Inge K.; Mowinckel, Athanasia M.; Lindenberger, Ulman; Düzel, Sandra; Bartrés-Faz, David; Ebmeier, Klaus P.; Drevon, Christian A.; Baaré, William; Ghisletta, Paolo; Johansen, Louise Barué; Kievit, Rogier A.; Henson, Richard N.; Madsen, Kathrine Skak; Nyberg, Lars; Harris, Jennifer; Solé-Padullés, Cristina; Pudas, Sara; Sørensen, Øystein; Westerhausen, René; Zsoldos, Enikő; Nawijn, Laura; Lynstad, Torkild Hovde; Suri, Sana; Penninx, Brenda; Røgeberg, Ole J.; Brandmaier, Andreas M., *Education and Income Show Heterogeneous Relationships to Lifespan Brain and Cognitive Differences across European and US Cohorts*, bioRxiv. <http://doi.org/10.1101/2020.10.12.335687>.

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## Software

- 2021 **cellmigRation: Track Cells, Analyze Cell Trajectories and Compute Migration Statistics**, Ghannoum S, Fantini D, Leoncio W, and Sørensen Ø, <https://bioconductor.org/packages/cellmigRation/>.  
o Contributor
- 2020 **metagam: Meta-Analysis of Generalized Additive Models**, Sørensen Ø., Brandmaier AM, and Mowinckel AM, <https://cran.r-project.org/package=metagam>.  
o Author and maintainer

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- 2020 **BayesianLaterality: Predict Brain Asymmetry Based on Handedness and Dichotic Listening**, Sørensen Ø., <https://cran.r-project.org/package=BayesianLaterality>.  
○ Author and maintainer
- 2018 **hdme: High-Dimensional Regression with Measurement Error**, Sørensen Ø, <https://cran.r-project.org/package=hdme>.  
○ Author and maintainer
- 2018 **BayesMallows: Bayesian Preference Learning with the Mallows Rank Model**, Sørensen Ø et al., <https://cran.r-project.org/package=BayesMallows>.  
○ Author and maintainer

*See my GitHub for a complete overview of my software both released and in development.*

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