

Hans-Georg Müller

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Academic Background and Employment. 1982 M.D., U of Heidelberg; 1983 Ph.D. in Mathematics, U of Ulm, Germany; 1986 Habilitation in Biostatistics, U of Marburg. 1984-86 Assistant Prof., 1987-88 Assoc. Prof., Institute of Medical Statistics, U of Erlangen-Nürnberg, Germany; 1988-90 Associate Prof., 1990 Professor, 2007 Distinguished Professor, Department of Statistics, UC Davis.

Awards and Honors. Elected Member, International Statistical Institute, 1989; Fellow, Institute of Mathematical Statistics, 1993; Fellow, American Statistical Association, 1995; Myrto Lefkopoulou Lecture, Harvard U 1995; Highly Cited Researcher (Mathematics), Institute for Scientific Information, 2002; Fellow, American Association for the Advancement of Science, 2006; Medallion Lecture, Institute of Mathematical Statistics, 2007; Distinguished Professor, UC Davis, since 2007; Sobel Lecture, UC Santa Barbara, 2015; Humboldt Senior Research Award, 2017; Noether Senior Scholar Award, 2017; IMS Rietz Lecture and Award, 2022; Nieuwland Lecture, Notre Dame U 2023; Rubin Lecture, Purdue U 2024.

Selected Service.

Professional: Associate Editor/Editorial Board for: *Scand. J. Statist.*, 1997-2003; *Sankhyā*, 1999-2001; *J. Multiv. Anal.* 2000-2003; *J. Statist. Plann. Inf.*, 2001-2002; *Statistica Sinica*, 2002-2005; *J. Royal Statist. Soc. Series B*, 2002-2006; *Biometrics*, 2012-2014; *Statistics and Econometrics*, 2015-current; *J. American Statistical Association*, 2002-current; *Annals of Statistics*, 2003-current; *Biometrika* 2009-current; *Canadian J. Statistics*, 2019-current; Co-Editor, *Statistica Sinica*, 2017-2020; Vice-President (1999-2000) and President (2000-2001) of the Sacramento Chapter of the ASA; Co-Leader of Program Year on Analysis of Object Data, 2010-2011, SAMSI; IMS Program Chair, JSM 2012; Chair, Special Lectures Committee of the IMS, 2012-13 (member 2010-12); Chair-Elect and Chair, Nonparametrics Section of the ASA, 2014, 2015.

University: Founding chair of the Graduate Group in Biostatistics at UC Davis, 2001-2006; Chair of the Department of Statistics and Graduate Program in Statistics, UC Davis, 2012-2015; Member (2015-16) and Chair (2016-current), Senate Committee on Elections, Rules and Jurisdiction.

Research. Theory, Methods and Applications of Statistics, emphasizing Nonparametric Statistics; Functional Data Analysis; Longitudinal Data Analysis; Statistics for Stochastic Processes; Metric Statistics, including Data on Manifolds and Random Objects in Metric Spaces; and Applications in Biodemography and Demography, Genetics, Brain Imaging, Medicine and Biology. Further details on 300+ publications here.

Selected recent papers

- Lin, Z., Müller, H.G., Yao, F. (2018). Mixture Inner Product Spaces and their application to functional data analysis. *Annals of Statistics* **46**, 370–400.
- Dai, X., Müller, H.G. (2018). Principal component analysis for functional data on Riemannian manifolds and spheres. *Annals of Statistics* **46**, 3334–3361.
- Dawson, M., Müller, H.G. (2018). Dynamic modeling of conditional quantile trajectories, with application to longitudinal snippet data. *J. American Statistical Association* **113**, 1612–1624.
- Petersen, A., Müller, H.G. (2019). Fréchet regression for random objects with Euclidean predictors. *Annals of Statistics* **47**, 691-719.

- Petersen, A., Deoni, S., Müller, H.G. (2019). Fréchet estimation of time-varying covariance matrices from sparse data, with application to the regional co-evolution of myelination in the developing brain. *Annals of Applied Statistics* **13**, 393–419.
- Dai, X., Hadjipantelis, P., Wang, J.L., Deoni, S., Müller, H.G. (2019). Longitudinal associations between white matter maturation and cognitive development across early childhood. *Human Brain Mapping* **40**, 4130–4145.
- Dubey, P., Müller, H.G. (2019). Fréchet analysis of variance for random objects. *Biometrika* **106**, 803–821.
- Han, K., Müller, H.G., Park, B. (2020). Additive functional regression for densities as responses. *J. American Statistical Association* **115**, 997–1010.
- Lopes, M., Lin, Z., Müller, H.G. (2020). Bootstrapping max statistics in high dimensions: Near-parametric rates under weak variance decay and application to functional and multinomial data. *Annals of Statistics* **48**, 1214–1229.
- Dubey, P., Müller, H.G. (2020). Functional models for time-varying random objects. *J. Royal Statistical Society B* **82**, 275–327 (Discussion Paper, Read at the Royal Statistical Society on 16 October 2019).
- Carroll, C., Bhattacharjee, S., Chen, Y., Dubey, P., Fan, J. Gajardo, Á., Zhou, X., Müller, H.G., Wang, J.L. (2020). Time dynamics of COVID-19. *Scientific Reports* **10**, 21040
- Dubey, P., Müller, H.G. (2020). Fréchet change-point detection. *Annals of Statistics* **48**, 3312–3335.
- Chen, Y., Dubey, P., Müller, H.G., Bruchhage, M., Wang, J.L., Deoni, S. (2021). Modeling sparse longitudinal data in early neurodevelopment. *NeuroImage* **237**, 118079
- Dai, X., Lin, Z., Müller, H.G. (2021). Modeling sparse longitudinal data on Riemannian manifolds. *Biometrics* **77**, 1328–1341.
- Lin, Z., Müller, H.G. (2021). Total variation regularized Fréchet regression for metric-space valued data. *Annals of Statistics* **49**, 3510–3533.
- Chen, Y., Lin, Z., Müller, H.G. (2023). Wasserstein regression. *J. American Statistical Association* **118**, 869–882.
- Tucker, D.C., Wu, Y., Müller, H.G. (2023). Variable selection for global Fréchet regression. *J. American Statistical Association* **118**, 1023–1037.
- Zhu, C., Müller, H.G. (2023). Autoregressive optimal transport models. *J. Royal Statistical Society B* **85**, 1012–1033.
- Bhattacharjee, S., Müller, H.G. (2023). Single index Fréchet regression. *Annals of Statistics* **51**, 1770–1798.
- Zhu, C., Müller, H.G. (2024). Spherical autoregressive models, with application to distributional and compositional time series. *J. Econometrics* **239**, 105389.
- Chen, Y., Lin, S.C., Zhou, Y., Carmichael, O., Müller, H.G., Wang, J.L. (2024). Gradient synchronization for multivariate functional data, with application to brain connectivity. *J. Royal Statistical Society B*
- Dubey, P., Chen, Y., Müller, H.G. (2024). Metric Statistics: Exploration and inference for random objects with distance profiles. *Annals of Statistics* **52**, 757 - 792.