David Kraus

Personal information

born	1979, Jihlava, Czech Republic
citizenship	Czech Republic
address	Masaryk University
	Department of Mathematics and Statistics
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	Czech Republic
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Education

2003–2008	Ph.D., Statistics, Charles University in Prague
	(advisor: Petr Volf, thesis title: Neyman's smooth tests in survival analysis)
1998–2003	Mgr. (M.Sc. equivalent), Statistics, Charles University in Prague

Experience

since 2016	Masaryk University, Brno, Department of Mathematics and Statistics
	Assistant Professor of Statistics
2013–2015	University of Bern, Institute of Social and Preventive Medicine
	Statistician (with Hansjakob Furrer and Matthias Egger)
2012–2013	University Hospital Lausanne, Institute of Social and Preventive Medicine
	Statistician (with Murielle Bochud)
2008–2012	Ecole Polytechnique Fédérale de Lausanne, Institute of Mathematics
	Postdoctoral Researcher (with Victor Panaretos)
2005–2008	Institute of Information Theory and Automation, Prague
	Research Assistant (with Petr Volf)
2004–2008	Charles University in Prague, Department of Statistics
	Research Assistant, Teaching Assistant

Qualifications and skills

Research

general	Statistics and probability (statistical methods and theory, modelling, data analysis, computing and simulation, probability theory, stochastic processes)
specific	Statistical modelling and inference for stochastic processes, functional and multivariate data analysis, survival and event history analysis, point processes, complex and high dimensional data, inverse problems, non- and semi-parametric procedures, quantile methods, goodness-of-fit inference, robust analysis, applications to natural science (e.g., molecular biology, geophysics, public health . . .)
other	Background in other fields of mathematics (numerical analysis, optimisation, . . .)

Teaching

Served as a teaching assistant for introductory and advanced courses in statistics (for students of mathematics and other disciplines); supervised student projects and theses; served as a committee member/reviewer for masters and doctoral theses

Academic service

Reviewer for The Annals of Statistics, Biometrika, Communications in Statistics, Computational Statistics, Computational Statistics and Data Analysis, Journal of Multivariate Analysis, Journal of Statistical Planning and Inference, Journal of the Royal Statistical Society: Series B, Kybernetika, Mathematical Reviews, Scandinavian Journal of Statistics, Statistical Modelling, Statistics, Statistics and Decisions

Awards and honours

2009   Best Paper Award, Kybernetika Journal, Prague

2003   McKinsey Award for an Outstanding Masters Thesis, Charles University in Prague, Department of Statistics

Publications

David Kraus and Marco Stefanucci. Classification of functional fragments by regularized linear classifiers with domain selection. *Biometrika*, 2018. To appear.

Hiwot Mamo Gebreselassie, David Kraus, CA Fux, Sebastian Haubitz, A Scherrer, C Hatz, O Veit, M Stoeckle, J Fehr, S de Lucia, M Cavassini, E Bernasconi, P Schmid, H Furrer, and C Staehelin. Ethnicity predicts viral rebound after travel to the tropics in HIV-infected travelers to the tropics in the Swiss HIV Cohort Study. *HIV Medicine*, 18(8):564–572, 2017.

Gilles Wandeler, David Kraus, Jan Fehr, Anna Conen, Alexandra Calmy, Christina Orasch, Manuel Battegay, Patrick Schmid, Enos Bernasconi, and Hansjakob Furrer. The J-curve in HIV: low and moderate alcohol intake predicts mortality but not the occurrence of major cardiovascular events. *Journal of Acquired Immune Deficiency Syndromes*, 71(3):302, 2016.

David Kraus. Components and completion of partially observed functional data. *Journal of the Royal Statistical Society: Series B (Statistical Methodology)*, 77(4):777–801, 2015.

David Kraus. Partially observed functional data. In *Contributions in Infinite-Dimensional Statistics and Related Topics*, pages 179–184. Esculapio, Bologna, 2014.

David Kraus and Victor M. Panaretos. Dispersion operators and resistant second-order functional data analysis. *Biometrika*, 99(4):813–832, 2012.

Victor M. Panaretos, David Kraus, and John H. Maddocks. Second-order inference for functional data with application to DNA minicircles. In *Recent Advances in Functional Data Analysis and Related Topics*, Contrib. Statist., pages 245–250. Physica-Verlag/Springer, Heidelberg, 2011.

Victor M. Panaretos, David Kraus, and John H. Maddocks. Second-order comparison of Gaussian random functions and the geometry of DNA minicircles. *Journal of the American Statistical Association*, 105(490):670–682, 2010.

David Kraus. Adaptive Neyman's smooth tests of homogeneity of two samples of survival data. *Journal of Statistical Planning and Inference*, 139(10):3559–3569, 2009.

David Kraus. Checking proportional rates in the two-sample transformation model. *Kybernetika*, 45(2):261–278, 2009.

David Kraus. Identifying nonproportional covariates in the Cox model. *Communications in Statistics – Theory Methods*, 37(3-5):617–625, 2008.

David Kraus. Data-driven smooth tests of the proportional hazards assumption. *Lifetime Data Analysis*, 13(1):1–16, 2007.

David Kraus. Goodness-of-fit inference for the Cox-Aalen additive-multiplicative regression model. *Statistics & Probability Letters*, 70(4):285–298, 2004.