Dr. Clara Happ

Curriculum vitae

Education

2013–2017	**Ph.D. in Statistics**, *LMU Munich*, Germany.
	Supervisors: Prof. Dr. V. Schmid, Prof. Dr. S. Greven
	Thesis: Statistical Methods for Data with Different Dimensions: Multivariate Functional PCA and Scalar-on-Image Regression
2011–2013	**Master in Statistics (M.Sc.)**, *LMU Munich*, Germany.
	Thesis: Identifiability in Scalar-on-Functions Regression
2010–2011	**Master in Mathematics (not completed)**, *University of Ulm*, Germany.
	Major: Mathematics (21 credits), Minor: Computer Science (23 credits, completed)
2007–2010	**Bachelor in Mathematics (B.Sc.)**, *University of Ulm*, Germany.
	Major: Mathematics, Minor: Computer Science
	Thesis: Simulation of Geometric Gibbs Graphs

Professional Experience

2013–2018	**Research Associate**, *LMU Munich*, Germany.
	Institute of Statistics, Working Groups Bioimaging & Biostatistics / Emmy-Noether Group "Statistical Methods for Longitudinal Functional Data"
2012–2013	**Student Assistant**, *LMU Munich*, Germany.
2010–2011	**Student Assistant**, *University of Ulm*, Germany.

Publications / Preprints

Happ, C. and S. Greven (2018). "Multivariate Functional Principal Component Analysis for Data Observed on Different (Dimensional) Domains". *Journal of the American Statistical Association* 113.522, pp. 649–659. DOI: 10.1080/01621459.2016.1273115.

Happ, C., S. Greven, and V. J. Schmid (2018). "The Impact of Model Assumptions in Scalar-on-Image Regression". *Statistics in Medicine* 37.28, pp. 4298–4317. DOI: 10.1002/sim.7915.

Happ, C. (2018). "Object-Oriented Software for Functional Data". Submitted. arXiv: 1707.02129.

Happ, C., F. Scheipl, A.-A. Gabriel, and S. Greven (2018). "A General Framework for Multivariate Functional Principal Component Analysis of Amplitude and Phase Variation". Submitted. arXiv: 1810.13321.

Software (R-Packages)

funData An S4 class for functional data
http://CRAN.R-project.org/package=funData

MFPCA Multivariate Functional Principal Component Analysis for Data Observed on Different Dimensional Domains
http://CRAN.R-project.org/package=MFPCA

Awards

2017 **Gustav Adolf Lienert Preis**.
Awarded by the German Region of the International Biometric Society (IBS–DR)

2016 **David P. Byar Young Investigator Award**.
Awarded by the Biometrics Section of the American Statistical Association (ASA)

Scholarships and Funding

2016 **Travel Grant**.
2016 CRoNoS Summer Course on Functional Data Analysis in Oviedo, Spain

2013–Present **Mentee of the LMU-Mentoring Programme**.
Career support for highly qualified female academics at LMU Munich

2012–2013 **Deutschlandstipendium**.
Financial and non-material support funded by private donors and the German government

2007–2017 **e-fellows.net**.
Career network and online scholarship program

Presentations

Multivariate Functional Principal Component Analysis for Data Observed on Different (Dimensional) Domains

2018 Talk, *IMS Annual Meeting*, Vilnius, Lithuania

2017 Talk, *CEN ISBS 2017*, Vienna, Austria

2017 Invited Talk, *IBS Channel Network Conference 2017*, Hasselt, Belgium

2016 Organized Talk, *COMPSTAT 2016*, Oviedo, Spain

2016 Topic Contributed Talk, *JSM 2016*, Chicago, USA

2016 Contributed Talk, *DAGStat 2016*, Göttingen, Germany

2015 Contributed Talk, *CMStatistics 2015*, London, United Kingdom

Two R-Packages for Object-Oriented Functional Data Analysis

2016 Contributed Talk, *COMPSTAT 2016 Satellite Workshop on Functional Data Analysis*, Oviedo, Spain

Identifiability and Multicollinearity in Scalar-on-Functions Regression

2017 Invited Talk, *CMStatistics 2017*, London, United Kingdom

2014 Contributed Talk, *20. DStatG Nachwuchsworkshop 2014*, Hannover, Germany

2014 Contributed Talk, *Doktorandentreffen Stochastik 2014*, Halle (Saale), Germany

A Fully Bayesian Hierarchical Model for Scalar-on-Image Regression

2014 Poster, *Bayesian Biostatistics 2014*, Zurich, Switzerland

Teaching Experience

2013–Present **Teaching Assistant**, *LMU Munich*, Germany.

Lectures

Summer 2018	Introduction to Probability and Inductive Statistics (Ba)
Winter 2017/18	Statistics III for Minors (Ba/Ma)

Exercises and Seminars

Winter 2017/18	Seminar FDA (Ba/Ma)
Summer 2017	Estimation and Testing II (Ma), Spatial Statistics (Ma)
Winter 2016/17	Probability Theory and Inference I (Ba), Seminar FDA (Ba/Ma) Introduction to Bayesian Statistics (Ba, Short Course)
Summer 2016	Estimation and Testing II (Ma), Bioimaging (Ma)
Winter 2015/16	Probability Theory and Inference I (Ba), Spatial Statistics (Ma)
Summer 2015	Introduction to Bayesian Statistics (Ba), Bioimaging (Ma)
Winter 2014/15	Probability Theory and Inference I (Ba), Spatial Statistics (Ma)
Summer 2014	Introduction to Bayesian Statistics (Ba), Bioimaging (Ma)
Winter 2013/14	Estimation and Testing I (Ma), Seminar Spatial Statistics (Ba/Ma)

2012–2013 **Student Assistant**, *LMU Munich*, Germany.

Summer 2013	Homework Correction Estimation and Testing II (Ma)
Winter 2012/13	Homework Correction Estimation and Testing I (Ma)

2010–2011 **Student Assistant**, *University of Ulm*, Germany.

Summer 2011	Homework Correction Linear Algebra II (Ba)
Winter 2010/11	Homework Correction Linear Algebra I (Ba)

Ba: Bachelor course, Ma: Master course

Professional Activities

Refereeing

Biometrics, European Journal of Operational Research, Journal of Statistical Planning and Inference, Statistica Sinica

Memberships

2015–Present **American Statistical Association**, *Biometrics Section*, Member.

2016–Present **International Biometric Society**, *German Region*, Member.