

# Curriculum Vitae

## Fabian Dunker

### Personal Data

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Name	Fabian Clemens Dunker
Address	School of Mathematics and Statistics Private Bag 4800 Christchurch 8140 New Zealand
Phone	+64 224007639
Email	fabian.dunker@canterbury.ac.nz
Citizenship	German

### Scientific interests

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Statistical inverse problems, Nonlinear Inverse Problems, Econometric Applications  
Nonparametric IV Models, Random Coefficient Models, Qualitative Constraints

### Employment

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since June 2017	Lecturer at the School of Mathematics and Statistics, University of Canterbury
October 2015 – May 2017	Research Fellow at the Institute for Mathematical Stochastics, University of Göttingen, Member of the Research Center “Poverty, Equity and Growth in Developing Countries”
October 2014 – September 2015	Research Fellow at the Institute of Statistics, Ruhr-Universität Bochum, Member of the Research Center “Statistical modelling of nonlinear dynamic processes”
June 2014 – September 2014	Research Fellow at the Institute for Applied Mathematics, University of Göttingen
January 2014 – May 2014	Visiting Assistant Professor at the Department of Economics, Boston College
April and May 2012	Visiting Researcher at Boston College
September 2008 – December 2013	Research Fellow at the Institute for Applied Mathematics, University of Göttingen, Member of the German-Swiss Research Group “Statistical Regularization and Qualitative Constraints”

## Education

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January 2012	Doctor of Sciences in Mathematics, University of Göttingen Thesis title: Nonlinear Inverse Problems with Noisy Operators and Applications in Nonparametric Instrumental Regression 1st Supervisor: Prof. Dr. Thorsten Hohage 2nd Supervisor: Prof. Dr. Enno Mammen
March 2008	Magister Artium in Philosophy, University of Göttingen
November 2006	Diploma in Mathematics, University of Göttingen

## Teaching

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Lectures	Time Series Methods, 2017, University of Canterbury Optimization, 2016/17, University of Göttingen Econometric Methods, 2014, Boston College Statistical Inverse Problems, 2013/14, University of Göttingen
Tutorials	Calculus Functional Analysis Number Theory Linear Algebra

## Publications

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- Dunker, F., Hohage, T. **On Parameter Identification in Stochastic Differential Equations by Penalized Maximum Likelihood.** *Inverse Problems*, **30** 095001, 2014.
- Dunker, F., Florens, J.-P., Hohage, T., Johannes, J., Mammen, E. **Iterative Estimation of Solutions to Noisy Nonlinear Operator Equations in Nonparametric Instrumental Regression.** *Journal of Econometrics*, 178(3): 444 – 455, 2014.
- Dunker, F., Florens, J.-P., Hohage, T., Johannes, J., Mammen, E. **Nonlinear Inverse Problems with Noisy Operators in Econometrics.** *Oberwolfach Report*, **51/2012**, 41–42, 2012.
- Dunker F. **Nonlinear Inverse Problems with Noisy Operators and Applications in Nonparametric Instrumental Regression.** *Dissertation* Der andere Verlag, Uelvesbüll, 2012.

## Working Papers and Preprints

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Dunker, F., Eckle, K., Proksch, K., Schmidt-Hieber, J. **Tests for Qualitative Features in the Random Coefficients Model.** major revision *JASA*.

Dunker, F. **Convergence of the risk for nonparametric IV quantile regression and nonparametric IV regression with full independence.** revise and resubmit *Econometric Theory*.

Dunker, F., Hoderlein, S., Kaido, H., Sherman, R. **Nonparametric Identification of Random Coefficients in Static Games of Complete Information.** revise and resubmit *Journal of Econometrics*.

Dunker, F., Hoderlein, S., Kaido, H. **Random Coefficients in Static Games of Complete Information.** reject and resubmit *Journal of Econometrics*.

Dunker, F., Hoderlein, S., Kaido, H. **Nonparametric Identification of Random Coefficients in Endogenous and Heterogeneous Aggregate Demand Models.** submitted.

## Talks

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| 17 May 2017  | Oberwolfach Workshop: Computational Inverse Problems for Partial Differential Equations ( <i>invited talk</i> )          |
| 28 Mar. 2017 | Department of Economics, University of Mannheim ( <i>invited talk</i> )  |
| 10 Dec. 2016 | International Conference of the ERCIM WG on Computational and Methodological Statistics, Seville ( <i>invited talk</i> ) |
| 08 Dec. 2016 | Department of Economics, University of Rostock ( <i>invited talk</i> )   |
| 01 Dec. 2016 | School of Mathematics and Statistics, University of Canterbury, Christchurch ( <i>invited talk</i> )                     |
| 25 May 2016  | Inverse Problems: Modeling and Simulation Conference, Fethiye ( <i>invited talk</i> )                                    |
| 29 May 2015  | Applied Inverse Problems Conference, Helsinki ( <i>invited talk</i> )  |
| 27 Apr. 2015 | Department of Economics, Humboldt-Universität Berlin ( <i>invited talk</i> )   |
| 16 Mar. 2015 | Department of Economics, Ludwig-Maximilian-Universität Munich ( <i>invited talk</i> )                                    |
| 14 Jan. 2015 | Institute of Applied Mathematics, University of Münster ( <i>invited talk</i> )  |
| 12 Sep. 2014 | Department of Economics, University of St. Gallen ( <i>invited talk</i> )  |

18 July 2014	Department of Economics, University of Mannheim ( <i>invited talk</i> )
27 June 2014	Institute of Statistics, University of Bochum ( <i>invited talk</i> )
25 June 2014	Department of Economics, University of Bonn ( <i>invited talk</i> )
02 June 2014	Cowles Econometrics Conference at Yale ( <i>invited talk</i> )
07 Apr. 2014	Econometrics Seminar Boston College ( <i>invited talk</i> )
25 Oct. 2012	Oberwolfach Workshop: Computational Inverse Problems ( <i>invited talk</i> )
03 June 2012	10th German Probability and Statistics Days in Mainz
22 Nov. 2011	Research Seminar of Mathematical Econometrics, Stochastics and Finance at the CEEE, University of Mannheim ( <i>invited talk</i> )
9 June 2011	Workshop: Mathematical Statistics meets Econometrics at ZEW Mannheim
25 May 2011	Applied Inverse Problems Conference at Texas A&M
20 Aug. 2010	28th European Meeting of Statisticians ( <i>invited talk</i> )
24 Sep. 2009	Workshop of the DFG-SNF Research Group FOR916 in Bern

## Refereeing for Journals

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Journal of Nonparametric Statistics  
Journal of Applied Statistics  
Inverse Problems  
Annals of Economics and Statistics  
Applied Soft Computing  
Entropy  
Mathematics