

# NEWSLETTER

## CRC 649

*Collaborative Research Center 649 „Economic Risk“*



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## NL 012, DECEMBER

### Editorial:

Collaborative Research Center 649:  
“Economic Risk”  
School of Business and Economics  
Humboldt-Universität zu Berlin  
Spandauer Straße 1  
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*"There is no rain above the clouds"*

## REGULAR RESEARCH SEMINARS

### *Economic risk seminar*

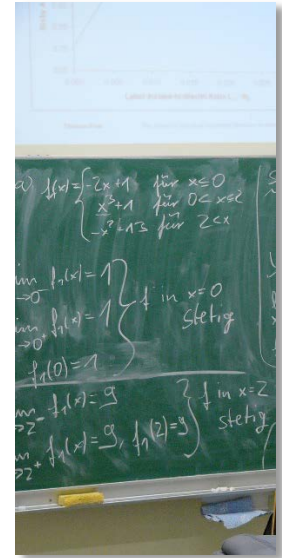
Location: Spandauer Str. 1, room 23  
 Time: every Monday, 2.00 – 4.00 p.m.  
 Schedule: [Website](#)

### *Schumpeter Seminar*

Location: Spandauer Str. 1, room 23  
 Time: every Tuesday, 4.00 – 6.00 p.m.  
 Schedule: [Website](#)

### *WIAS Research Seminar Mathematical Statistics*

Location: Weierstrass Institute for Applied Analysis and  
 Stochastics, Mohrenstraße 39, 10117 Berlin  
 Erhard-Schmidt-Hörsaal  
 Time: every Wednesday, 10.00 – 12.00 a.m.  
 Schedule: [Website](#)



*An overview is available at:*

[sfb649.wiwi.hu-berlin.de/fedc/seminars.php](http://sfb649.wiwi.hu-berlin.de/fedc/seminars.php)

## CURRENT EVENTS



*More information can be found here:*

[sfb649.wiwi.hu-berlin.de/fedc/events\\_actual.php](http://sfb649.wiwi.hu-berlin.de/fedc/events_actual.php)

16. December 2015

### *Hilda Geiringer Lecture*

CRC 649

Please consult the [schedule](#) of the event for further informations.

## PAST EVENTS



*18. November 2015*

**Jour Fixe Fall 2015**

The last Jour fixe of 2015 started with a welcome to the many CRC guests and a presentation by Wolfgang Härdle and Janine Tellingner-Rice about the DFG's "transferprojects" which every CRC member can apply for.

Our guest Linlin Niu from Xiamen University then gave a plenary talk followed by another plenary talk of CRC members Daniel Neuhoff and Lukas Borke updating everyone on GitHub and Quantnet. The complete program can be found here [http://sfb649.wiwi.hu-berlin.de/fedc/events\\_actual.php](http://sfb649.wiwi.hu-berlin.de/fedc/events_actual.php).

After the coffee break during which many took the opportunity to discuss current research, three more parallel sessions followed. The Jour fixe Fall was concluded by the meeting of the CRC project leaders.



## NEWS OF THE PROJECTS

**Dorothea Kübler (A6)** gave a talk in the seminar of the DFG research group “Design and Behavior” at the University of Cologne on “Self-confidence and unraveling in matching markets” on the 3<sup>rd</sup> of November, as well as at the Erich Schneider Research Seminar of the University of Kiel / IfW on the 16<sup>th</sup> of November. She also attended the Tax Day, held by the Max Planck Institute for Tax Law and Public Finance in Munich, on the 9<sup>th</sup> of November 2015, and gave a talk on “College Admissions with Entrance Exams: Centralized versus Decentralized”.

**Roland Strausz (A8)** presented his paper “A Theory of Crowdfunding - a mechanism design approach with demand uncertainty and moral hazard” at the workshop on auctions and procurement design in Cologne on the 10<sup>th</sup> of November.

**Ulrich Horst (A11)** visited the Institute for Mathematical Economics at Bielefeld University on the 13<sup>th</sup> of November and King’s College London on the 25<sup>th</sup> to the 26<sup>th</sup> of November. On the 25<sup>th</sup> of November he gave a presentation on “Conditional Analysis and a Principal Agent Problem” at LSE.

**Wolfgang Karl Härdle (B1)** met with Alice Blanck (Statistics Editorial Department of Springer Verlag) to discuss SFB-Transfer Projects T2 and T3 (Deutsche Bank) on the 4<sup>th</sup> to the 5<sup>th</sup> of November in Heidelberg. Transfer projects are a means of continuing chosen SFB-649 TP’s after the conclusion of SFB-649 (in December of 2016) by using finance and support from external sponsors. Furthermore he was a member of the jury at the annual Scope Awards (Scope Ratings AG) ceremony on the 5<sup>th</sup> of November at Frankfurt/Main. On the 19<sup>th</sup> and the 20<sup>th</sup> of November he joined the meeting in Grünheide to establish the concept and parameters of a new project on “DEDA – Digital Economy & Decision Analytics”. Lastly Professor Härdle presented a study entitled “FASTEC – Factorisable Sparse Tail Event Curves” at the Max-Planck-Institut für Demografisches Forschung in Rostock.

**Lei Fang (B1)** presented “Stochastic Population Analysis: A functional Data Approach” at the Max-Planck-Institut für Demografisches Forschung in Rostock.

**Michael C. Burda (C7)** gave presentations “Not working at work: Loafing, Unemployment and Labor Productivity” on the 3<sup>rd</sup> of November in the Seminar Series of the Research Program on Development and Utilization of Human Resources of the School of Business and Economics at Maastricht University, and on the 5<sup>th</sup> of November in the Research Seminar in Economics at the Freie Universität Berlin. On the 12<sup>th</sup> of November he was the Chair of the disputation “Poor versus rich – How to deal with the inequality of the market economy?” between Prof. Marcel Fratzscher (President of the DIW Berlin) and Prof. Dr. Christoph Schmidt (President of the RWI Essen) of the School of Business and Economics at the Humboldt-Universität zu Berlin.

**Frank Heinemann (C10)** presented a paper on “Deriving the Global Game Selection in Games with many Actions and Asymmetric Players” at the economics research seminar at the Karlsruhe Institut für Technologie on the 12<sup>th</sup> of November.

**Matthias Ritter (C11)** attended the “24. Windenergietage” in Linstow and gave a talk on “Erstellung eines Windenergie-Index anhand von MERRA-Daten” (Designing a wind energy index based on MERRA data) on the 11<sup>th</sup> of November.

**Helmut Luetkepohl (C15)** has participated in the conference on “Advances in Time Series and Forecasting” in Paris from the 5<sup>th</sup> to the 6<sup>th</sup> of November and has presented a paper entitled: “Structural Vector

Autoregressions with Smooth Transition in Variances: The Interaction Between U.S. Monetary Policy and the Stock Market". On the 6<sup>th</sup> of November he also participated in the Workshop for Søren Johansen in Copenhagen.

## GUESTS OF THE CRC 649

You find a summary of all guests here:  
[sfb649.wiwi.hu-berlin.de/fedc/guests\\_actual.php](http://sfb649.wiwi.hu-berlin.de/fedc/guests_actual.php)

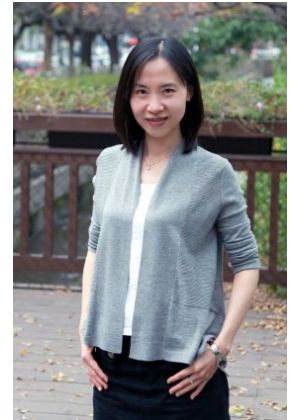
01.08.2015 -  
30.08.2016

**Chen, Yi-Hsuan Cathy**  
Chung-Hua University (TW)

Project: The integration of credit default swaps markets

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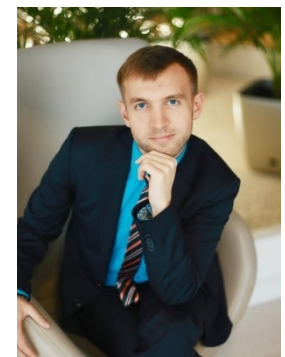


01.08.2015 -  
31.05.2016

**Filipkov, Yuriy**  
Odessa I.I. Mechnikov National University (UA)

Project: Management of scientific research and education and its societal modeling, financing and practical implementation of research and development

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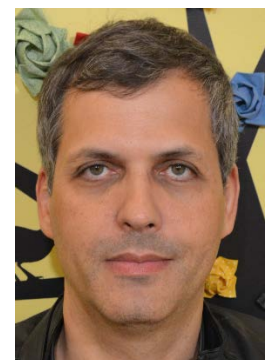


02.09.2015 -  
29.02.2016

**Feijó, Ricardo**  
University of São Paulo (BR)

Project: Numerical simulations on the dynamics and Stochastic General Equilibrium Approach: an exercise in MATLAB program.

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02.09.2015 -  
29.02.2016

**Niu, Linlin**  
Xiamen University (CN)

Project: Macro-finance, Applied econometrics, International economics

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## NEW DISCUSSION PAPERS

More detailed information is available [here](#).



### 2015-050

"Nonparametric Estimation in case of Endogenous Selection" ([File](#))  
by Christoph Breunig, Enno Mammen and Anna Simoni

### 2015-051

"Frictions or deadlocks? Job polarization with search and matching frictions" ([File](#))  
by Julien Albertini, Jean Olivier Hairault, François Langot and Thepthida Sopraseuth

### 2015-052

"ICARE - localizing Conditional AutoRegressive Expectiles" ([File](#))  
by Xiu Xu, Andrija Mihoci and Wolfgang Karl Härdle

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## Publications

More detailed information is available [here](#).

C12

**Altmeyer, R. and Bibinger, M.**

Functional stable limit theorems for quasi-efficient spectral  
covolatility estimators

Stochastic Processes and their Applications

DOI: 10.1016/j.spa.2015.07.009

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# Quantlets

Reversible Jump Markov Chain Monte Carlo Sampler for Autoregressive Moving Average Models

## Project: RJMCMC

Reversible Jump Markov Chain Monte Carlo (RJMCMC), pioneered by [Peter Green in 1995](#), is a method to construct Markov Chain Monte Carlo samplers for posterior distributions not only spanning the parameter space associated with a particular model, but instead the union space between the model space and the associated parameter spaces. Using RJMCMC, the model space is explored efficiently by avoiding to spend much time analyzing models with low posterior probability. Based on the output from RJMCMC, posterior distributions for any model statistics can easily be calculated while at the same time accounting for posterior model uncertainty. More in-depth discussions of this implementation can be found in [Neuhoff \(2015\)](#) and [Meyer-Gohde and Neuhoff \(2015\)](#).

All corresponding Matlab codes and datasets can be found [here](#) in Quantnet on github.com.

Quantlet [estimateARMA.m](#) provides a sampler for zero-mean stationary ARMA(p,q) models of unknown order. The design is akin to a trans-dimensional version of the Random Walk Metropolis-Hastings sampler. The user can provide own prior and proposal distributions, as well as likelihood functions, if desired. Instructions for doing so are provided with the sampler. Note, that the lag polynomials of the ARMA models are reparametrized in terms of (inverse) partial autocorrelations. The Quantlet outputs some posterior statistics, as well as some convergence diagnostics. Additional posterior statistics are easily computed from the sampler output.

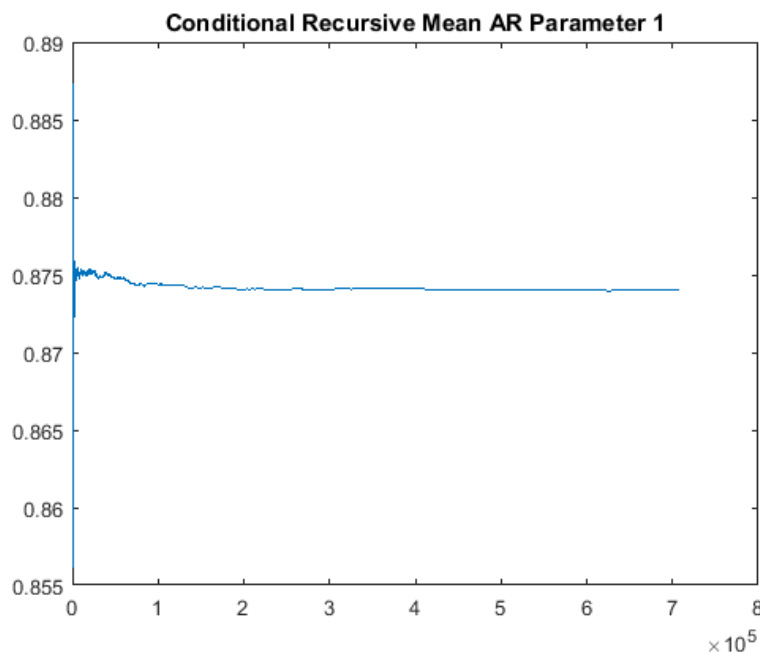


Figure 1: CUSUM statistic for the first partial autocorrelation of the autoregressive polynomial for the model at the mode in (p,q) space.

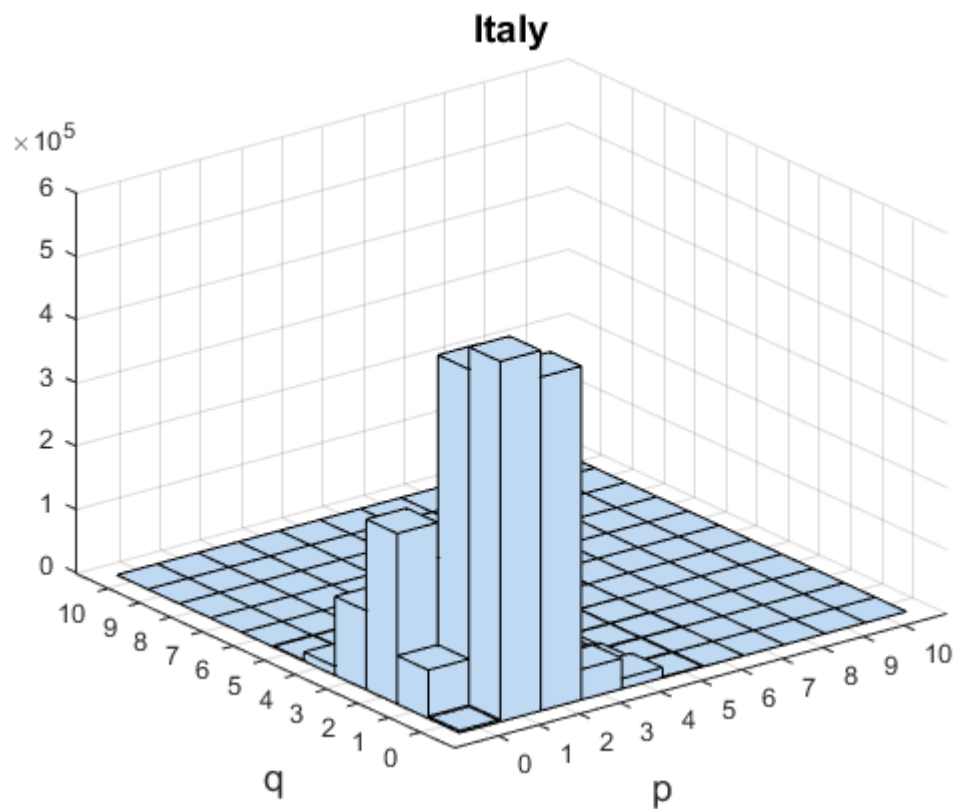


Figure 2: Posterior distributions over the model space for growth rates of Italian GDP.  $P$  denotes the order of the autoregressive polynomial, and  $q$  the order of the moving average polynomial.



## Season Greetings

Dear colleagues and friends of the CRC649,

Once again an eventful year is drawing to a close. During the Holiday Season more than ever, our thoughts turn gratefully to those who have made our progress possible.

We value our relationship with you and we are very much looking forward to continuing our successful partnership with you in the coming year.

2016 will bear the burden of bringing our combined effort and the effort of all the previous researchers who have worked in the CRC649 team, to a distinguished conclusion; with that in mind, we wish all our students, postgraduates, doctorands and researchers all the best for 2016 with the best possible scientific results next year and in the future.

And in this spirit we also say, simply but sincerely **Thank You** and **Best Wishes** for the Holiday Season and a **Happy New Year!**

Warm greetings

Your Z-Team



From left to right:

Alona Zharova, Raphael Reule, Marius Sterling, Hanna Thielcke, Lukas Mogge, Dominik Prugger, Janine Telling-Rice

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Please also note that the newsletter is published on the homepage of the CRC 649.

Editorial deadline for the Newsletter of January 2015 is 01.01.2016.