

Hugo Storm

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CURRICULUM VITAE

Name: Dr. agr. Hugo Storm
Date/place of birth: February 05, 1984, Lahnstein (Germany)
Nationality: German

Profile

I am an Agricultural economist with a focus on applied econometrics and machine learning. Currently I am working on the use of Deep Learning methods for empirical policy analysis. I have worked on research questions spanning areas such as farm structural change, water pricing, post-harvest losses and resilience of social-economical systems. Additionally, I am a part time farmer and as well as data science consultant.

Academic Education

05/2009 – 8/2014 Doctorate degree in Agricultural Economics (Dr. agr.), University of Bonn
Grade: Summa cum laude
Title: *Methods of analysis and empirical evidence of farm structural change*

10/2004 – 04/2009 Agricultural Science (specialisation on Agricultural Economics and Policy), University of Bonn
Degree: Dipl.-Ing. agr. (Agricultural Economist, Master equivalent)
Thesis: *Willingness to Pay for Irrigation Water in the Drâa Valley in Morocco – An Application of the Contingent Valuation Method and the MIVAD Model*

03/2003 University entrance diploma (Abitur), Kant-Gymnasium, Boppard

Work and Research experience

08/2014 – present Researcher at the Institute for Food and Resource Economics, Economic and Agricultural Policy Group, University of Bonn, Germany

- Research focus on agricultural policy / resource economic question
- Research using novel deep learning approaches and (spatial) econometrics approach for empirical policy analysis
- Support of teaching activities and thesis supervision
- Project management and acquisition

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- 03/2013 – 04/2013 DAAD Project-related Exchange (PPP) at the Norwegian Institute of Bioeconomy Research (NIBIO), Oslo, Norway
- International cooperation. Work on spatial regression techniques in the context of Norwegian farm structural change
- 08/2010 – 10/2010 Visiting Scholar with Prof. Ron C. Mittelhammer, School of Economic Sciences, Washington State University, Pullman, Washington, USA
- International cooperation. Work on Bayesian estimation methods for the combination of farm and regional level data
- 05/2009 – 08/2014 Researcher at the Institute for Food and Resource Economics, Economic and Agricultural Policy Group, University of Bonn, Germany
- Work on statistical methods for the analysis of farm structural change in the EU and Norway
 - Collaboration in an EU research project
 - Teaching and support of teaching activities in Applied Econometrics
- 10/2007 – 03/2009 Student Assistant, Institute for Food and Resource Economics, Agricultural and Food Market Research Group, University of Bonn

CONSULTANCY

- 08/2018-present EOPTI, Neunkirchen. Project: Data science consulting.
Topic: Develop a machine learning prediction approach in a hospital management context.
- 12/2012-12/2013 EuroCARE Bonn GmbH. Project *Structural Changes in Agriculture, Rural Communities and Cultural Landscape*. Constituent: *Institute for rural and regional research (RURALIS), Trondheim, Norway*
Topic: Analyzing farm households on- and off-farm income situation in Norway.
- 02/2011-10/2012 EuroCARE Bonn GmbH. Project: *Modelling the effects of the CAP on farm structural change*, Constituent: JRC EU Commission – IPTS, Seville
Topic: Development of an empirical estimation approach for the analysis of the effects of policy on EU farm structural change, including design and implementation of a training session for applying the estimation approach.
- 06/2011 - 10/2011 Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ), Bonn. Project: *Applied GAMS Training session to develop a Linear Optimization model for Agroforestry Systems in the Philippines*
Topic: Personalized training and joint development of a GAMS model to analyses resources economic question in context of Agroforestry Systems in the Philippines.

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Grants and Awards

- 07/2015 Publication award from the Faculty of Agriculture, University of Bonn for the publication: *Direct payments, spatial competition and farm survival in Norway* (with K. Mittenzwei and T. Heckelei) American Journal of Agricultural Economics 97(4):1192-1205
- 03/2013 - 04/2013 DAAD travel grand for a research vist in Oslo, Norway
- 10/2009 – 09/2010 PhD Grant from the Theodor Brinkmann Graduate School, University of Bonn

Research projects

- 2015 – 2019 German Research Foundation (DFG) Individual Grant: Empirical analysis of farm level spatial interactions and their role for aggregated policy impact analysis (GZ: STO 1087/1-1), *Principle Investigator*
- 2011 – 2014 DFG Individual Grant: Development of a Bayesian estimator for non-stationary Markov transition probabilities and its application to EU farm structural change (GZ: HE 2854/4-1), *PhD Student*
- 2010 – 2011 European Commission, Joint Research Centre, Institute for Prospective Technological Studies (IPTS) Project "Modelling the effects of the CAP on farm structural change" (Contract 151949-2010-A08-DE)
- 2009 German Federal Ministry of Education and Research (BMBF) and Ministry of Science and Research (MWF) of North-Rhine-Westphalia, "IMPETUS An integrated approach to the efficient management of scarce water resources in West Africa" (BMBF grant No. 01 LW0301A and MWF grant No. 223-21200200), *Diploma Thesis*

Teaching

- 2018 Lecture "Advanced Applied Econometrics" (co-taught, Master Level, University of Bonn)
- 2014 and 2015 Preparation and grading of exercises of the lecture "Advanced Applied Econometrics" (Master Level, University of Bonn)
- 2014/15 Preparation and grading of exercises of the lecture "Microeconomics" (Master Level, University of Bonn)
- 2013 Lecture "Advanced Econometrics Reading Seminar" (Master Level, University of Hohenheim)
- 2012/13 Lecture "Applied Econometrics" (co-taught, Master Level, University of Hohenheim, Germany)
- 2011 Lecture "Advanced Applied Econometrics" (Master Level, University of Bonn)
- 2009/10 Exercise of the lecture "Simulation Models for Policy Analysis" (Master Level, University of Bonn)

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Practical agriculture

- 01/2015 – present Owner of a fruit farm in Kamp-Bornhofen, Germany (part time)
09/2005 – 11/2005 Internships Wharetoa Dairy Farm, Clydevale, Otago, New Zealand
04/2004 – 07/2004 Internships Agricultural Teaching and Research Station, Dikopshof,
Wesseling, University of Bonn, Germany

Additional Qualifications and Referee activities

- Languages German (native), English
Software Skills Python (Keras/Tensorflow, pandas, numpy, matplotlib), Matlab,
GAUSS, GAMS, EViews, R, Stata, MySQL/PHP/jQuery
Referee activities Journal of Environmental Management (1)
Water Resources Research (1)
American Journal of Agricultural Economics (4)
European Review of Agricultural Economics (2)
Agricultural and Food Science (1)
Agribusiness: an International Journal (1)

Publications

Journal articles (Peer-Reviewed)

1. Saint-Cyr, L., Storm, H., Heckeleei, T. and Piet, L. (2018): Heterogeneous impacts of neighbouring farm size on the decision to exit: evidence from Brittany. *European Review of Agricultural Economics*. doi.org/10.1093/erae/jby029.
2. Bassey, N. E., Kuhn, A. and Storm, H. (2018): Are maize marketers averse to quality loss in supplies? A case study from Ghana. *Agricultural Economics* 49:5, 649-658.
3. Storm H., Heckeleei, T. (2018): Reducing omitted variable bias in spatial interaction models by considering multiple neighbourhoods. *Spatial Economic Analysis*. [doi:10.1080/17421772.2018.1468571](https://doi.org/10.1080/17421772.2018.1468571).
4. Rasch, S., T. Heckeleei, H. Storm, R. Oomen and C. Naumann (2017): Multi-scale resilience of a communal rangeland system in South Africa. *Ecological Economics* 131:129-138.
5. Storm, H., T. Heckeleei and R.C. Mittelhammer (2016): Bayesian estimation of non-stationary Markov models combining micro and macro data. *European Review of Agricultural Economics*, 43(2):303-329.
6. Storm, H., T. Heckeleei, M. Espinosa and S. Gomez y Paloma (2015): Short Term Prediction of Agricultural Structural Change using Farm Accountancy Data Network and Farm Structure Survey Data. *German Journal of Agricultural Economics*, 64(3).
7. Storm, H., K. Mittenzwei and T. Heckeleei (2015): Direct payments, spatial competition and farm survival in Norway. *American Journal of Agricultural Economics*, 97(4):1192-1205.
8. Storm, H., T. Heckeleei and C. Heidecke (2011): Estimating irrigation water demand in the Moroccan Drâa Valley using contingent valuation. *Journal of Environmental Management*, 92(10):2803-2809.

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Book chapters

9. Mittenzwei, K., H. Storm and T. Heckeley (2017): Farm labour and farm income: Case Study from Norway. In: Mishra, A. K., Viaggi, D., Gomez y Paloma, S. (ed.) Public Policy in Agriculture Impact on Labor Supply and Household Income, Routledge.

Project Reports

10. Gocht, A., N. Röder, S. Neuenfeldt, H. Storm and T. Heckeley (2012): Modelling farm structural change: A feasibility study for ex-post modelling utilizing FADN and FSS data in Germany and developing an ex-ante forecast module for the CAPRI farm type layer baseline. JRC Scientific and Policy Reports, 25555 EN.

Monographie

11. Storm, H. (2014): Methods of analysis and empirical evidence of farm structural change. Dissertation, University of Bonn, URN: urn:nbn:de:hbz:5n-37174.

Working papers and conference contributions

12. Storm, H., T. Heckeley, K. Mittenzwei and, K. Baylis (2018): Using Recurrent Neural Networks to identify farm subsidies effects on structural change. Presentation at the University of Illinois, October 4, 2018.
13. Saint-Cyr, L., H. Storm, T. Heckeley and L. Piet (2017): Heterogeneity And Spatial Interdependence In Farm Survival: Evidence From Brittany. International Congress of the European Association of Agricultural Economists (EAAE), August 28-September 1, 2017, Parma, Italy.
14. Bassey, N., A. Kuhn and H. Storm (2017): Marketers Consciousness for Quality Loss Reduction: A Case from Maize Marketers in Ghana. Tropentag 2017, September 20 - 22, Bonn, Germany.
15. Storm, H. and T. Heckeley (2016): Using Multiple Neighboring Interaction Effects in Spatial Regression Specifications to Reduce Omitted Variable Bias. Paper presented at the 56th Annual Conference of the German Association of Agricultural Economists, Bonn, Germany, September 28-30, 2016.
16. Storm, H. and T. Heckeley (2016): Local and regional spatial interactions of Norwegian farm growth. Paper presented at the 2016 AAEA Annual Meetings, Boston, Massachusetts, July 31-August 2, 2016.
17. Zavelberg, Y. and H. Storm (2015): Pricing behaviour of cooperatives and investor-owned dairies in a spatial market setting. Paper presented at the 150th EAAE Seminar, Edinburgh, UK, October 22-23, 2015.
18. Storm, H., K. Mittenzwei and T. Heckeley (2013): Direct payments, spatial competition and farm survival in Norway. Paper presented at the 2013 AAEA Annual Meetings, Washington, DC, August 4-6, 2013.
19. Storm, H. and T. Heckeley (2011): Bayesian estimation of non-stationary Markov models combining micro and macro data. Poster presented at the 2011 AAEA Annual Meetings, Pittsburgh, USA, July 24-26.

Bonn, 30 October 2018