Thomas Berger, Dr. sc. agr., Dipl.-Ing. agr.,

is chair of land-use economics at the Hans-Ruthenberg-Institute and the Computational Science Hub, Hohenheim University. His research addresses the spatial aspects of human-environment interactions in land use and water resources management, such as adaptation to climate change, integrated irrigation development, carbon farming and digital agriculture. His 2001 paper introducing multi-agent systems is the most cited article among 'agent-based models for agriculture' listed in Scopus and the second most cited agent-based modeling article in the 'Economics' Web of Science category[1].

Thomas Berger holds a PhD in Agricultural Sciences (*summa cum laude*), earned in 2000 at Göttingen University. He was Junior Research Group Leader of the Robert Bosch Foundation and achieved his Postdoctoral Lecturer Qualification (*venia legendi*) in Agricultural and Resource Economics at Bonn University. He has ample experience in interdisciplinary research projects, for example GLOWA-Volta, Uplands Program (SFB 564) and CGIAR Challenge Program on Water & Food. He has secured and/or managed €6 million worth of externally funded research and published 70 peer-reviewed articles and book chapters.

From 2010 to 2017 he served as Associate Editor for the Journal 'Environmental Modelling & Software' (Elsevier). For seven years, he was member of the state-level User Steering Committee (LNA) for high-performance computing, data-intensive computing, and scientific data management. Currently, he is the president's delegate for high-performance computing at Hohenheim University

Awards

Thomas Berger was awarded €150.000 within the Gips-Schüle program for Funding Excellence (2020). He received the Henry Schapper Fellowship of the University of Western Australia in Perth (2005) and the Best Dissertation Award of the German Association for Informatics in Agriculture, Forestry and Nutrition (2000).

Coordinated Projects

Thomas Berger was project leader (together with Nancy McCarthy, IFPRI) of the project 'Integrating Governance & Modeling' within the CGIAR Challenge Program on Water and Food. This project was as one of 16 projects (out of 342 proposals) that were immediately funded in the first competitive call of CGIAR.

In DFG-FOR 1695, a Research Unit on 'Agricultural Landscapes under Global Climate Change' established by the *Deutsche Forschungsgemeinschaft* at Hohenheim University, he was deputy speaker. He is designated speaker of DFG-TRR 400, a new research initiative of Hohenheim University and Technical University of Munich for reconciling biodiversity and agriculture using Hybrid Intelligence.

Highlighted Publication

Berger, T., 2001. Agent-Based Spatial Models applied to Agriculture: a Simulation Tool for Technology Diffusion, Resource Use Changes and Policy Analysis. Agricultural Economics 25, 245-260.

This paper introduces the agent-based modeling approach that Thomas Berger developed for simulation of adaptive land and water management in agriculture. The paper was selected as one of the 22 best papers of the XXIV International Conference of Agricultural Economists (ICAE) in Berlin (August 2000). Today, it is the second most cited paper in the history of the journal *Agricultural Economics*.

[1] https://onlinelibrary.wiley.com/doi/10.1111/joes.12470

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[2] Among the Top 10% of papers published in *Journal of Geophysical Research: Atmospheres* in 2022

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[5] Among the 'Highly Cited Articles published in 2015' of *American Journal of Agricultural Economics*

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[7] Most cited 'agent-based model for agriculture' in Scopus, second most cited 'agent-based model' in the 'Economics' Web of Science category,second most cited paper in history of IAAE journal *Agricultural Economics*