

1_Curriculum Vitae

Personal Data

Title	Dr.
First name	Kathrin
Name	Grahmann
Current position	Junior Research Group Leader and Tenure Track Candidate
Current institution(s)/site(s), country	Leibniz Centre for Agricultural Landscape Research (ZALF), Müncheberg, Germany
Identifiers/ORCID	0000-0002-9589-7441

Qualifications and Career

Stages	Periods and Details
Degree programme	B.Sc. Resource Management in Agricultural Sciences 10/2007–07/2010, University of Göttingen, Germany M.Sc. Sustainable International Agriculture, 10/2010–07/2012, Universities of Göttingen and Kassel, Germany
Doctorate	12/2016, Prof. Andreas Bürkert & Prof. Klaus Dittert, Organic Plant Production and Agroecosystems Research in the Tropics and Subtropics, University of Kassel, Germany
Stages of academic/professional career	– 10/2023–present: BMFTR Junior Research Group Leader (SoilRob), ZALF, Germany, temporary until 07/2028 – 01-04/2023: Kentucky University Fulbright Scholar, Lexington, USA – 01/2021–present: Tenure Track Candidate in Landscape Experimentation, ZALF, Germany – 01/2020–12/2020: Postdoctoral Research Assistant, Working Group "Resource-Efficient Cropping Systems" ZALF, Germany – 04/2018–11/2019: Postdoctoral Research Assistant, INIA Uruguay – 11/2015–10/2017: Visiting Scientist at ITSON, (Technological Institute of Sonora) University, Department of Water and Environmental Sciences, Ciudad Obregón, Mexico – 08/2012–12/2012: Junior Researcher at SIP (Sustainable Intensification Program), CIMMYT, Mexico

Supplementary Career Information

One child, born Feb 2017: parental leave till March 2018

Activities in the Research System

- **Research projects:** Member of the Excellence Cluster PhenoRob 2, University of Bonn; FORMULA, Benchmarks, FORTUNA

- **Conferences:** Scientific Board ESAA conference 2022 Potsdam, Co-Organizer of Landscape Conference 2024 in Berlin,
- Scientific coordinator of patchCROP landscape experiment
- **Member of Scientific associations:** ISTRO, DGB and GIL
- **Peer-reviewer for journals:** Smart Agricultural Technology, Journal of Plant Nutrition and Soil Science, Ecological Research Letters, Agronomy for Sustainable Development, Agronomy, Soil & Tillage Research, PLOS ONE, Soil Use and Management
- **Peer-reviewer for funding bodies:** NordForsk-Sustainable Agriculture 2022, BLE-Digital Green Tech 2925, COST Action 2024

Supervision of Researchers in Early Career Phases

- **Current PhD theses, main supervisor:**
 - Lina Rohlmann: A Multi-site Analysis of Agricultural Robotic Systems to assess the impact of Autonomous Mechanical Weed Control on Soil Hydrological and Physical Processes
 - Lukas Thielemann: Mechanical Weeding by Autonomous Field Robots: Effects on Soil Carbon Dynamics and Soil Biodiversity in Diversified Cropping Systems
 - Tawhid Hossain: Exploring relationships between point measurements and digital technologies for an advanced understanding of drivers of spatial nitrogen heterogeneity in agricultural landscapes
 - Tara Kaila: Use of complex, heterogeneous on-farm experimental data to understand spatial patterns and key drivers of yield variability at the landscape scale
- **Current PhD thesis co-supervision:** Paulina Siri: Advanced statistical methods for the evaluation of resilience and stability in long-term agronomic experiments
- **Completed PhD theses, co-supervisor:** Dr. Marco Donat: Development of new field arrangements based on cluster analysis of high dimensional data sets
- **Mentoring PostDoc:** Dr. Adrija Roy

Scientific Results

Category A– Articles in peer-reviewed journals, contributions to peer-reviewed conferences or to anthology volumes, and book publications

1. Zentgraf, Maire; Holz, Maire; Monzón Diaz, Oscar R.; Lück, Matthias; Kramp, Katja; Pusch, Valerie; **Grahmann, Kathrin**; Hoffmann, Mathias. 2024. How scale affects N₂O emissions in heterogeneous fields of a diversified agricultural landscape. Scientific Reports 15, 11013 <https://doi.org/10.1038/s41598-025-95630-6>
2. Thompson, J., Döring, T., Bellingrath-Kimura, S., **Grahmann, K.**, Glemnitz, M., Reckling, M., 2025. Spatial arrangement of intercropping impacts natural enemy abundance and aphid predation in an intensive farming system. Agriculture, Ecosystems & Environment 378, <https://doi.org/10.1016/j.agee.2024.109324>
3. Hernandez-Ochoa, I. M., Gaiser, T., **Grahmann, K.**, Engels, A., Kersebaum, C., Seidel, S. J. and Ewert, F., 2024. Cross Model Validation for a Diversified Cropping System. European Journal of Agronomy 157, 127181. doi.org/10.1016/j.eja.2024.127181
4. **Grahmann, K.**, Reckling, M., Hernandez-Ochoa, I., Donat, M., Bellingrath-Kimura, S., Ewert, F., 2024. Co-designing a landscape experiment to investigate diversified cropping systems. Agricultural Systems 217, 103950. <https://doi.org/10.1016/j.agsy.2024.103950>

5. Pereponova, A., **Grahmann, K.**, Lischeid, G., Bellingrath-Kimura, S., Ewert, F., 2023. Sustainable transformation of agriculture requires landscape experiments. *Heliyon*, <https://doi.org/10.1016/j.heliyon.2023.e21215>
6. **Grahmann, K.**, Zwinck, M., Verch, G., Barkusky, D., Sommer, M. 2023. The dilemma of analytical method changes for soil organic carbon in long-term experiments. *European Journal of Soil Science* 74, Issue 2, doi.org/10.1111/ejss.13362
7. Hernandez-Ochoa; I., Gaiser; T., Kersebaum, K.-C., Webber, H., Seidel, S., **Grahmann, K.**, Ewert, F., 2022. Model-based design of crop diversification through new field arrangements in spatially heterogeneous landscapes: A review. *Agronomy for Sustainable Development* 42, doi.org/10.1007/s13593-022-00805-4
8. Jakobs, S., Webber, H., Niether, W., **Grahmann, K.**, Lüttschwager, D., Schwartz, C., Breuer, L., Bellingrath-Kimura, S., 2022. Modification of the microclimate and water balance through the integration of trees into temperate cropping systems. *Agricultural and Forest Meteorology* 323, doi.org/10.1016/j.agrformet.2022.109065
9. **Grahmann, K.**, Terra, J., Ellerbrock, R., Rubio, V., Barro, R., Quincke, A. 2022. Data accuracy and method validation of chemical soil parameters in long-term experiments: Standard operating procedures for a non-certified soil laboratory in Latin America. *Geoderma Regional* 28, [doi: 10.1016/j.geodrs.2022.e00487](https://doi.org/10.1016/j.geodrs.2022.e00487)
10. **Grahmann, K.**, Rubio, V., Terra, J., Quincke, A. 2020. Long-term observations in contrasting crop-pasture rotations over half a century 1. Statistical analysis of chemical soil properties and implications for soil sampling frequency. *Agriculture, Ecosystems and Environment* 287, 1-11, doi.org/10.1016/j.agee.2019.106710.

Category B– Any other form of published results

1. **Grahmann, K.**, Meier, K., Schumacher, M. (2024). Template Data Management Plan for complex research projects (consisting of different work packages or sub-projects (>3) and disciplines).
2. Quincke, A., Tassano, M., González, J.M., **Grahmann, K.**, Pérez-Bidegain, M., Ciganda, V., Evrard, O., Barolin, E., Cabrera, M., 2024. Erosión Del Suelo: nuevos métodos de estudio en el “viejo” experimento de rotaciones de La Estanzuela. Technical report in INIA magazine Nr.77, ISSN - 1510 - 9011, in Spanish
3. **Grahmann, K.**, Schumacher, M., Gerlach, F., 2024. Anbausysteme und Agrarlandschaften im Wandel. *LÄNDLICHE RÄUME* 2 / 24, 33-35, in German.
4. Döring, T., Seidel, S., Zingsheim, M., **Grahmann, K.**, Rascher, U., 2023. -. *Lumbrico* 16, 37-40.
5. Fabini, G., **Grahmann, K.**, Castillo, J., Gonzalez, P., Terra, J. A., 2022. Eficiencia de uso del N en el arroz: pensando en Sistemas. INIA (Instituto Nacional de Investigacion Agricola), 41-44. INIA Serie Técnica 262, Montevideo, Uruguay. Technical report, in Spanish. 10.35676/INIA/ST.262
6. **Grahmann, K.**, Quincke, A., Barolin, E. 2020. Cover crops: Soil erosion reduction and soil nutrition improvement - the case of rye (*Secale cereale*) with *Vicia Villosa*. Technical report in INIA magazine Nr.60, ISSN - 1510 - 9011, in Spanish.
7. **Grahmann, K.**, Quincke, A., Ciganda, V., 2018. Nitrate-nitrogen losses through leaching in continuous cropping systems and crop-pasture rotation. Technical report in INIA magazine Nr.55, ISSN - 1510 - 9011, in Spanish.

8. Verhulst, N., Francois, I.M., **Grahmann, K.**, Cox, R., Govaerts, B., 2014. Nitrogen use efficiency and optimization of nitrogen fertilization in conservation agriculture. ii, 6 p. Mexico, DF (Mexico). CIMMYT.

Academic Distinctions

- Invitation to Global Summit Women 2025 in Berlin for Keynote in session “Food security and technology”
- Invitation by Humboldt Foundation, Berlin, Germany for the INDO-GERMAN programme and present in “Frontiers of Engineering”; Session “Sustainable Agriculture and Agroecology” 2024, Mumbai, India
- Fulbright Research Fellow, University of Kentucky (2023–2025)
- Leibniz Leadership Academy Fellow (2023–24) & Leibniz Mentoring Program (2020–22)
- PhD Scholarships: DAAD & Studienstiftung (2013–16)
- Best MSc Graduate at University of Göttingen in Sustainable International Agriculture (2012)

Data protection and consent to the processing of optional data

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☒ **I expressly consent to the processing of the voluntary (optional) information, including “special categories of personal data”¹ in connection with the DFG’s review and decision-making process regarding my proposal.** This also includes forwarding my data to the external reviewers, committee members and, where applicable, foreign partner organisations who are involved in the decision-making process. To the extent that these recipients are located in a third country (outside the European Economic Area), I additionally consent to them being granted access to my data for the above-mentioned purposes, even though a level of data protection comparable to EU law may not be guaranteed. For this reason, compliance with the data protection principles of EU law is not guaranteed in such cases. In this respect, there may be a violation of my fundamental rights and freedoms and resulting damages. This may make it more difficult for me to assert my rights under the General Data Protection Regulation (e.g. information, rectification, erasure, compensation) and, if necessary, to enforce these rights with the help of authorities or in court.

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I have taken note of the DFG’s Data Protection Notice relating to research funding, which I can access at www.dfg.de/privacy_policy and I will forward it to such persons whose data the DFG processes as a result of being mentioned in this CV.

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