

Interdisciplinary Geospatial Measurement and Analytical Methods for Global Public Health Research and Policy

 Venue: Leibniz Institute for Prevention Research and Epidemiology - BIPS, Bremen

 Dates: 10-11 September, 2026

Thursday, 10th September 2026

9:00-9:15	Welcome and Workshop Objectives – Hajo Zeeb, Rajini Nagrani (BIPS)
9:15-9:30	Setting the Stage: The Role of Satellite-derived Environmental Data in Global Health – Poornima Prabhakaran (Ashoka University, India)
9:30-11:15	Session 1: Satellite-derived environmental exposure assessment A short introduction to the range of variables measurable via satellite imagery – Gina Maskell (Potsdam Institute for Climate Impact Research, Germany) Satellite-derived Environmental Exposure Assessment in the IDEFICS/I.Family Pan-European Children's Cohort – Nour Naaouf (BIPS)
10:30-10:45	Break
	Session 1: Satellite-derived environmental exposure assessment (Continued) Blame it on Climate Change: the tapestry of dominant climate politics – Md. Nadiruzzaman (Maastricht University) Geospatial approaches to ocean and coastal environments – Daniel Schürholz & Vilane Goncalves Sales (Leibniz Centre for Tropical Marine Research, Germany)
11:15-12:00	Perspective talk: <i>From Location to Exposure: Environmental data in the German National Cohort (NAKO)</i> – Marco Dallavalle (Helmholtz Munich, Germany)
12:00-13:00	Lunch
13:00-14:00	Session 2: Methods and challenges in Satellite-Derived Environmental Exposure Assessment High-resolution temperature modeling across India: Methods, Data, and Scale challenges – Ajit Rajiva (Ashoka University, India) Integrating multi-source geospatial data to model high-resolution PM_{2.5} concentrations in India: Methodological challenges and applications – Jyothi Menon (Ashoka University, India)
14:00: 15:00	<i>Only for in-person participation</i> Interactive breakout: Key methodological challenges across HIC and LMIC settings (2 groups)
15:00-15:30	Break
15:30-17:00	Session 3: Data Infrastructure, Access and Capacity Building for Environmental Health Research Geospatial data, tools, and capacity gaps in low-resource settings: a spatial epidemiology perspective - Peter Macharia (Institute of Tropical Medicine, Belgium) Navigating India's Geo-Health Landscape: Insights on Big Data, Process Infrastructure and Accessibility – Ashoka University, India Data Infrastructure and Reuse for Societal Benefit: Cross-Cutting Challenges – Wim Hugo (DANS, Netherlands)
17:00-17:15	Day 1 wrap-up: Synthesis of challenges and priorities
18:00	Workshop Dinner

9:00-10:00	Session 4: Advanced Analytical Methods for Satellite-Derived Environmental Exposure Data Modeling spatial and temporal variations of temperature and humidity across Germany for epidemiological research – Nikolaos Nikolaou (Helmholtz Munich, Germany) Integrating Satellite-Derived and Ground-Based Environmental Data for Exposure Assessment: From Distributed Lag Nonlinear Models to Machine Learning Approaches – Prasad Liyanage (University of Heidelberg, Germany)
10:00-10:30	Session 5: Open-source environmental and geospatial data resources Open-Source Geospatial Tools and Datasets for Reproducible Environmental Exposure Assessment – Annika Nolte (University of Bremen, Germany) <i>Online talk:</i> Operational Weather, Climate, and Geospatial Services for Health Applications in India – Satyaban Ratna (Indian Meteorological Department, India)
10:30-10:45	Break
10:45-12:15	Session 6: Applications of satellite-derived environmental data in epidemiological and life-course studies Integrating Satellite-Derived Environmental Data into Epidemiological Studies: Methods and Applications – Nidhi Singh (Leibniz Research Institute for Environmental Medicine, Germany) Multiple exposures across the life course: opportunities and challenges in bringing Indian cohorts together – Aditi Roy (Ashoka University, India) The geography of being left behind: health access, disease and coverage in sub-Saharan Africa – Peter Macharia (Institute of Tropical Medicine, Belgium)
12:15-13:15	Lunch (including group photo)
13:15-14:15	<i>Only for in-person participation</i> Interactive breakout: Methods clinics and use cases (climate vulnerability, health equity) Goal: To collaboratively examine how geospatial environmental data and analytical methods can be applied to real-world public health and climate questions.
14:15-15:45	Session 7: Translating Satellite-Derived Environmental Data into Public Health Action From geospatial evidence to action: translating geospatial evidence into public health and climate policy – Poornima Prabhakaran (Ashoka University, India) Translating Exposome Research into Precision Prevention and Public Health Action – Konstantinos Makris (Cyprus University of Technology, Cyprus)
15:45-16:00	Final sum-up: Roadmap, outputs, and next steps – Rajini Nagrani, Konrad Stopsack (BIPS)
16:00	End of workshop and refreshments

The workshop is funded by:



Workshop partners:



Leibniz-Institut
für Präventionsforschung
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