

MARIO ANGST

Environmental Governance | Networks | Data Analysis | Social-Ecological Systems

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🔗 scholar.google.com/citations?user=bNkbVRwAAAAJ



PUBLICATIONS

Peer-reviewed articles

- Angst, Mario (2020). "Bottom-Up Identification of Subsystems in Complex Governance Systems". In: *Policy Studies Journal* 48.3, pp. 782–805. DOI: 10.1111/psj.12301.
- Kammermann, Lorenz and Mario Angst (2020). "The Effect of Beliefs on Policy Instrument Preferences: The Case of Swiss Renewable Energy Policy". In: *Policy Studies Journal* early view. DOI: 10.1111/psj.12393.
- Metz, Florence, Mario Angst, and Manuel Fischer (2020). "Policy integration: Do laws or actors integrate issues relevant to flood risk management in Switzerland?" In: *Global Environmental Change* 61, p. 101945. DOI: <https://doi.org/10.1016/j.gloenvcha.2019.101945>.
- Angst, Mario (2019). "Networks of Swiss Water Governance Issues. Studying Fit between Media Attention and Organizational Activity". In: *Society & Natural Resources* 32.12, pp. 1416–1432. DOI: 10.1080/08941920.2018.1535102.
- Fischer, Manuel, Mario Angst, and Simon Maag (2019). "Co-participation in the Swiss water forum network". In: *International Journal of Water Resources Development* 35.3, pp. 446–464. DOI: 10.1080/07900627.2017.1374929.
- Angst, Mario, Alexander Widmer, Manuel Fischer, and Karin Ingold (2018). "Connectors and coordinators in natural resource governance: insights from Swiss water supply". In: *Ecology and Society* 23.2. DOI: 10.5751/ES-10030-230201.
- Angst, Mario and Christian Hirschi (2017). "Network Dynamics in Natural Resource Governance: A Case Study of Swiss Landscape Management". In: *Policy Studies Journal* 45.2, pp. 315–336. DOI: 10.1111/psj.12145.

Book chapters

- Angst, Mario and Manuel Fischer (2020). "Identifying Subsystems and Crucial Actors in Water Governance: Analysis of Bipartite Actor—Issue Networks". In: *Networks in Water Governance*. Ed. by Manuel Fischer and Karin Ingold. 1st ed. Palgrave Macmillan. Chap. 5, pp. 115–143. DOI: 10.1007/978-3-030-46769-2.

Software

- Angst, Mario and Tim Seppelt (2020). *motifr: Motif analysis in multi-level networks*. R package version 0.2.

Reports and Practitioner Journals

- Andri, Bryner, Angst Mario, Manuel Fischer, and Stefan Vollenweider (2020). *Wasserpolitischer Jahresrückblick 2019 (transl: Review of Swiss Water Politics 2019)*. Aqua Gas 5/2020.
- Andri, Bryner, Angst Mario, Manuel Fischer, and Stefan Vollenweider (2019). *Wasserpolitischer Jahresrückblick 2018 (transl: Review of Swiss Water Politics 2018)*. Aqua Gas 4/2020.
- Angst, Mario (2012). *Integration of nature protection in Swiss forest policy*. INTEGRATE country report. Swiss Federal Research Institute for Forest, Snow and Landscape WSL, Birmensdorf.

CORE COMPETENCES



Environmental Governance and Policy

Environmental governance happens in the interaction of state, private and civil society organizations. I investigate the nuts and bolts of it



Complex Social-Ecological Systems

I develop and apply innovative methods to investigate social-ecological systems by untangling problem structure and governance networks at the same time - to find conditions for successful outcomes



Networks

From governance networks to social-ecological networks and integrated networks of actors and causal graphs



Data Analysis

Bayesian data analysis with a focus on (multi-level) regression models and causal inference, network analysis and compelling data visualizations. Methods development where it is needed

EDUCATION

2015-2019

PhD in Political Science

📅 University of Bern 📍 Bern

Summa cum laude

2012-2014

Master of Science in Sustainable Development

📅 University of Basel 📍 Basel

2008-2012

Bachelor of Arts in Political Science/ Environmental Science

📅 University of Zürich 📍 Zürich

EMPLOYMENT HISTORY

Postdoc 70%

Swiss Federal Institute for Forest, Snow and Landscape Research WSL

📅 since 04/2020

📍 Birmensdorf

Postdoc 70%

Eawag aquatic research

📅 03/2019 to 06/2020

📍 Dübendorf

PhD Student 70%

Eawag aquatic research

📅 08/2015 to 03/2019

📍 Dübendorf

Civil Service, Landscape Quality and Ecosystem Services

Swiss Federal Office for the Environment

📅 12/2014 to 05/2015

📍 Ittigen

Communication/ Marketing

restorm.com

📅 01/2011 to 11/2011

📍 Zürich

Bike Messenger

Genossenschaft Veloblitz

📅 03/2009 to 11/2017

📍 Zürich

Radio Journalist (trainee), 30%

toxic.fm

📅 08/2009 to 09/2010

📍 St.Gallen

(*only employment longer than four months shown)

POSTDOCTORAL EDUCATION/ GRANTS

Research visit at Stockholm Resilience Centre

📅 06/2019 to 10/2019

📍 Stockholm

Development of integrated network models for ecosystem governance. Scientific exchange grant for four months. Swiss National Science Foundation

Postdoc Academy for Transformational Leadership

📅 2019 to 2021

2-year postdoc academy for selected group of 20 European Postdocs working in inter- and transdisciplinary sustainability science. Grant from the Robert Bosch Foundation

Development of motifr package

📅 2020

Early-career researcher grant for support in the development of motifr R package. University of Bern

REVIEWER

Completed reviews for:

Policy Studies Journal

Politics and Governance

Policy Sciences

Ecology and Society

Environmental Conservation

Forest Policy and Economics

SAGE Open

Europ. Computational Social Science Conference

International Journal of Social Economics

Arabian Journal of Geosciences

SKILLS

Data Gathering

Survey Design

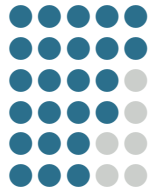
Participatory systems mapping

Standardized interviews

Text mining

Semi-structured interviews

Webscraping



Analysis

Network analysis/ ERGM

(Multi-level) regression/ GLMs

Bayesian statistics

Quantitative text analysis

Causal graphs

Machine learning



Computer Skills

R

Shiny

Python

HTML/ CSS

Javascript/ D3

Hugo, blogdown

Git

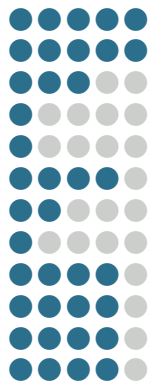
Make

Inkscape

Gephi

Audio editing

TeX



Languages

Englisch

Französisch

Spanisch



TEACHING

Main instructor

(*sole instructor if no other person is mentioned)

Sustainability transformations

📅 Fall Semester 2020 📍 University of Bern

BA level seminar, 6 ECTS, 30 participants

Smartphone democracy

📅 Spring Semester 2020 📍 University of Bern

BA level seminar, 6 ECTS, 30 participants

Concepts, analytical approaches and tools for network analysis

📅 2019/05/07 📍 ETH Zurich

Workshop for development economics research group, 12 participants

Social network analysis. A primer

📅 2018/04/18 to 2018/04/19 📍 University of Bern

Intensive introductory workshop for PhD students, with Laurence Brandenberger, 7 participants

Governance networks

📅 Spring Semester 2017 📍 University of Bern

BA level seminar, 6 ECTS, 30 participants

Teaching contributions

Research data management

📅 2019/11/22 📍 University of Bern

Guest talk in PhD and master colloquium

Social-ecological networks in swiss wetlands

📅 2018/04/18 📍 University of Bern

Guest lecture in course Policy Analysis III (Prof. Karin Ingold)

Identifying overlapping policy subsystems

📅 2017/03/21 📍 University of Bern

Guest lecture in course Environmental Policy Analysis (Prof. Karin Ingold)

Social network analysis. An Introduction.

📅 2017/03/21 📍 Eawag

Co-teaching in internal workshop at Eawag

Identifying policy issue involvement of actors in an interactive survey

📅 2016/05/10 📍 University of Bern

Guest talk in course Governance (PD Manuel Fischer)

(Co-)supervision of junior researchers

Ongoing

- Huber, Martin. Ecosystem governance and social-ecological networks in Switzerland: bringing politics back in. (PhD) - with Manuel Fischer
- Tommaso, Lavinia. Causal loop diagramming of wetlands governance in the Bolle and Maggia regions, Ticino. (MA) - with Manuel Fischer
- Bhatia, Iris. Combining the institutional resource regime and social-ecological network frameworks. (MA) - with Manuel Fischer and Frédéric Varone
- Widmer, Seraina. Sustainability transformations. (BA)

Finished

- Thees, Oscar. Gathering data from hyperlink networks for the study of political networks. 2019. (BA) - with Laurence Brandenberger
- Rohn, Camille. Critical consumption as a form of political participation in Bern. 2018. (BA)
- Grünholz Mirjam. Analysis of political decision-making in Swiss cantons based on the multiple streams approach. 2017. (BA) - with Karin Ingold

CONFERENCE PRESENTATIONS

Why Do Actors Choose to Participate in Forums, and in Which Ones? Angst, Mario, Jack Mewhirter and Manuel Fischer

ECPR General Conference

📅 2020/08/028

📍 Innsbruck (virtual)

What makes ecosystem governance successful? A comparative study of twelve Swiss wetlands combining social network analysis and causal loop diagramming. Angst, Mario, Manuel Fischer and Martin Huber

Sunbelt Conference

📅 2020/07/16

📍 Paris (virtual)

Policy belief differences as obstacles to information exchange in natural resource governance. Angst, Mario and Laurence Brandenberger

ECPR Joint Sessions

📅 2019/04/09

📍 Mons

Cross-Sectoral Policy Integration. Metz, Florence, Mario Angst and Manuel Fischer

Sunbelt Conference

📅 2017/09/08

📍 Utrecht

Advantage or Coordination? Why Actors are Involved in Multiple Policy Subsystems. Angst, Mario

ECPR General Conference

📅 2017/09/08

📍 Oslo

Overcoming fragmentation: Core-periphery brokerage and central coordination in natural resource governance. Angst, Mario, Alexander Widmer, Manuel Fischer and Karin Ingold

SPSA Swiss Political Science Association Conference

📅 2017/01/11

📍 Bern

(*presentations by others with a listing as co-author but no presentation given not shown)

PANELS

Panel Chair: Adaptive Water Governance in Social-Ecological Systems

ECPR General Conference

📅 2020/08/25

📍 Innsbruck (virtual)

Dialogue Session Input: Scales and Scaling in Transitions

International Sustainability Transitions Conference

📅 2020/08/20

📍 Vienna (virtual)

INSTITUTIONAL WORK

- Elected member of the internal ecology team at Eawag (responsible for sustainable management of energy, consumables and other resources)
- Founding member of internal Eawag group FlyAware for climate-friendly mobility. Development and submission of policy recommendations based on staff survey, multiple workshops.

SCIENTIFIC SOCIETIES

- Member of ECPR (European Consortium for Political Research) standing groups on Environmental Policy and Political Networks
- Member of INSNA International Network for Social Network Analysis
- Member of the Swiss Political Science Organization

OUTREACH WORK

- Communication of published research findings on blogs and communication outlets targeted at practitioners (defacto.expert, Eawag News, publication briefs on homepage)
- To be elected board member of Veloblitz (logistics SME, 90 employees) to focus on corporate social impact, sustainability and data
- Podcast in development on governance and sustainable development topics in academia and development consulting with Oliver Clarke of Palladium
- Creation of homepage to communicate research findings on network development in regional nature park Thal. Findings were used in successful re-application of park for federal funding.