LAURENCE BRANDENBERGER

ETH, Chair of Systems Design

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Education

2019	PhD in Political Science, University of Bern, Department of Social Sciences, *summa cum laude*
2015	Santa Fe Institute, Complex Systems Summer School, Santa Fe, NM
2014	MA in Sociology, University of Bern, *summa cum laude*
2013	BA in Sociology, University of Bern

Employment

2022 -	Senior scientist at ETH Zurich, Chair of Systems Design
2018 - 2022	Post-Doc at ETH Zurich, Chair of Systems Design
2014 - 2019	PhD student at Eawag, the Water Research Institute of ETH Domain, Department of Environmental Social Sciences (secondary affiliation: University of Bern, Institute of Political Science) Supervisors: Philip Leifeld (University of Essex) and Karin Ingold (University of Bern)
2015	Visiting scholar at the Department of Politics and Public Administration, University of Konstanz, Germany
2011 - 2014	Student research assistant of Prof. Ben Jann, Institute of Sociology, University of Bern
2011	Student research assistant of Prof. Axel Franzen and Katrin Botzen, M.A., Institute of Sociology, University of Bern

Awards and Grants

2021	ETH Board, Swiss Data Science Center; Research Project *EvolvingDemocraSci*. Co-PI. 263,110 CHF.
2016	Travel Grant to attend the 33rd Annual Meeting of the Society for Political Methodology (Polmeth Conference), Houston TX, July/August 2016, $1,567
2015	Grant to attend the Complex Systems Summer School at the Santa Fe Institute, Berne University Research Foundation (IMG), grant #4/15, $4,400

Software Development

`pdf2Data`	A software-package for the Extraction of Data form PDF Documents. Under development in collaboration with the Swiss Data Science Center.
`rem`	R-package for the estimation of Relational Event Models. R package version 1.3.1. Latest Version on CRAN; Github repository.
`ghypernet`	R-package for the estimation of multi-edge network regressions. R package version 1.1.0.

Teaching

University Courses

Fall 2022	Data Science for Social Challenges [co-teaching with Ramona Roller, #363-1167-00L]. Master/PhD Seminar, ETH Zurich.
Fall 2017	Social Networks [Soziale Netzwerke, #424297]. Proseminar, University of Bern.
Fall 2016	Political Networks [Politische Netzwerke, #424297]. Proseminar, University of Bern.

Winter/Summer Schools and Workshops

2019	Introduction to Network Regression Models for multi-edge/weighted networks using the ghypernet-package in R. With Giona Casiraghi. Workshop taught at the European Conference on Social Networks 2019, EUSN, ETH Zurich, Zurich (CH), September 9-12, 2019.
2016 - 2018	Inferential Network Analysis (WD208). Teaching Assistant of Philip Leifeld at the ECPR Winter School in Methods & Techniques, University of Bamberg, Bamberg (DE). Annual one-week course (2016, 2017, 2018).

Thesis Supervision

2022	Master Thesis of Vincent Jung on ideological embeddings of Swiss MPs.
2018	Bachelor Thesis of Marco Wyss on the potential bias students with migration background face when applying for apprenticeships.
2018	Bachelor Thesis of Oscar Thees on the use of hyperlink networks in social sciences. Co-supervision with Mario Angst.

Research Project Involvement

2022 - 2024	"EvolvingDemocraSci: Advancing parliamentary data analysis: Linking issues and collaborations of indi- vidual politicians" A Swiss Data Science Center (SDSC) project (PI: Prof. Dr. Dr. Frank Schweitzer, Co-PI: **Dr. Laurence Brandenberger**), funded by the ETH Board. 263,110 CHF.
2019 - 2022	"Analyzing Co-Sponsorship Networks from 127 Years of the Swiss Federal Assembly" (Nr. 184963, PI: Prof. Dr. Dr. Frank Schweitzer, funded by the Swiss National Science Foundation (SNF). Post-Doctoral researcher.
2018 - 2020	"A research platform for data-driven democracy studies in Switzerland - DemocraSci" A data science collaboration with the Swiss Data Science Center SDSC (PI: Prof. Dr. Dr. Frank Schweitzer), funded by the ETH Board. Research consultant.
2014 - 2017	"Overlapping Subsystems: Identification and Integration of Fragmented Games in Swiss Water Politics" (Nr. 149410, PI: Prof. Dr. Karin Ingold), funded by the Swiss National Science Foundation (SNF). Research assistant.

Reviewing Activities

Journals: American Political Science Review, American Sociological Review, Advances in Complex Systems, European Journal of Political Research, European Union Politics, Politics and Governance, Public Administration, Social Networks, Sociological Methods and Research, Swiss Political Science Review

Funding agencies: Schweizerischer Nationalfonds, Deutsche Forschungsgemeinschaft

Presentations

2022 "Towards a Parliamentary Database". Presentation at the Conference on Political Careers, University of Basel, Switzerland, June 20-22, 2022.

2022 "Sitting next to you: Effects of seating arrangements on parliamentary collaboration". Presentation at 15th Annual Political Networks Conference, University of Iowa, US, June 13 - July 15, 2022.

2022 "Sitting next to you: Effects of seating arrangements on parliamentary collaborations". Presentation at the Annual Congress 2022 Swiss Political Science Association, University of Lausanne, Switzerland, February 3-4, 2022.

2022 "Towards a Parliamentary Database–Processing over 250,000 PDF Documents and Structuring their Content". Presentation at the Annual Congress 2022 Swiss Political Science Association, University of Lausanne, Switzerland, February 3-4, 2022.

2021 "Hyperlink networks between organizations - the next frontier in policy network studies or a hopeless mess? Fresh evidence for an ongoing debate" Presentation at the European Conference on Social Networks 2021, EUSN, University of Naples Federico, Naples (IT), September 6-10, 2021. Presented by the co-author.

2021 "Networks over Time. Hierarchy Formation in Open Source Software Collaborations." Presentation at the sociology research colloquium, University of Bern, Bern (CH), March 17, 2021.

2020 "Measuring political polarization in the Swiss parliament." Presentation at the interdisciplinary symposium on the resilience and performance of networked systems, ETH Zurich, Zurich (CH), January 15-16, 2020.

2019 "Predicting Offline Political Support with Online Social Behavior." Presentation at the European Conference on Social Networks 2019, EUSN, ETH Zurich, Zurich (CH), September 9-12, 2019.

2019 "Predicting Offline Political Support with Online Social Behavior." Poster presentation at the 3rd European Symposium on Societal Challenges in Computational Social Science, ETH Zurich, Zurich (CH), September 2-4, 2019.

2019 "Predicting Offline Political Support with Online Social Behavior." Presentation at the 12th Annual Political Networks Conference, Duke University, Durham NC (US), May 29 - June 1, 2019.

2019 "Disentangling Selection from Influence Effects in Social Networks Using Relational Event Models." Poster presentation at the 12th Annual Political Networks Conference, Duke University, Durham NC (US), May 29 - June 1, 2019.

2019 "Predicting Offline Political Support with Online Social Behavior." Presentation at the Network Science Society: NetSci 2019 conference, Complexity Center, Burlington VT (US), May 29, 2019.

2019   "Quantifying endogenous network statistics in network ensembles." Presentation at the NetSci2019 Satellite Workshop Statistical Inference for Network Models, Complexity Center, Burlington VT (US), May 27, 2019.

2019   "'Good' and 'Bad' Instruments: Evaluating Actors' Policy Preferences in Swiss Flood Risk Management." Presentation at the Annual Convention of the Swiss Political Science Association, ETH Zurich, February 14-16, 2019. Presented by the co-author.

2018   "Using an Automated Approach for the Identification of Coalitions in Policy Processes". Presentation at the annual conference of the Swiss Political Science Association, University of Geneva, Geneva (CH), February 5-6, 2018.

2017   "Predicting relational events". Presentation at the Third European Conference on Social Networks (EUSN), Johannes Gutenberg-University, Mainz (DE), September 26-29, 2017.

2017   "Information exchange in interwoven policy networks". Presentation at the Annual Convention of the Swiss Political Science Association, University of St. Gallen, St. Gallen (CH), January 12, 2017.

2017   "Predicting relational events". Presentation at the Annual Convention of the Swiss Political Science Association, University of St. Gallen, St. Gallen (CH), January 12, 2017.

2016   "Goodness-of-fit measures for temporal event network models". Poster presentation at the 33rd annual meeting of the Society for Political Methodology, Rice University, Houston (US), July 23, 2016.

2016   "Boundary Spanning across Adjacent Policy Subsystems: ActorIssue Relations in Swiss Water Politics". Presentation at the Annual Convention of the Swiss Political Science Association, University of Basel, Basel (CH), January 21 2016.

2015   "National Parliamentary Coordination after Lisbon: A Network Approach". Presentation at the PhD-colloquium for Public Policy and Regulation, Institute of Political Science, University of Bern, Bern (CH), October 20 2015.

2015   "Coordination patterns in policy debates". Presentation at the Brown Bag Seminar, Department of Politics and Public Administration, University of Konstanz, Germany, May 22 2015.

2014   "Studying behavioral mechanisms in the policy process and political discourse". Presentation at the Environmental Social Sciences Seminar, Department of Environmental Social Sciences, Eawag (Swiss Federal Institute of Aquatic Science and Technology), Dübendorf (CH), November 14 2014.

2014   "Studying behavioral mechanisms in the policy process and political discourse". Presentation at the Political Science Colloquium, Institute of Political Science, University of Bern, Bern (CH), October 13 2014.

2014   "Overlapping Subsystems. Identification and Integration of Fragmented Games in Swiss Water Politics. Project Overview". Presentation at the Seminar on Transboundary Water Management, University of Bern and University of Geneva, Cully (CH), October 10 2014.

Laurence Brandenberger

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Publications

Peer-Reviewed Journal Articles

(Impact factors (year) and rank in their respective ISI category in parentheses)

2022 **Brandenberger, Laurence**, Giona Casiraghi, Georges Andres, Simon Schweighofer, Frank Schweitzer (2022). Comparing Online and Offline Political Support. Swiss Political Science Review. 28(4):604-623
1.578 (2021), #119–Political Science); [link to replication files]
link to Defacto blogpost

2022 Metz, Florence and **Laurence Brandenberger** (Online First). Policy Networks Across Political Systems. American Journal of Political Science.
4.503 (2021), #1–Political Science); [link to replication files]
link to Defacto blogpost

2021 Angst, Mario and **Laurence Brandenberger** (2021). Information exchange in governance networks—Who brokers across political divides? Governance. 35(2): 585-608
3.833 (2017), #4–Political Science); [link to replication files]

2021 Glaus, Anik, Ruth Wiedemann and **Laurence Brandenberger** (2021). Toward sustainable policy instruments: assessing instrument selection among policy actors. Journal of Environmental Planning and Management. 65(9):1708-1726.
2.735 (2020)

2020 **Brandenberger, Laurence**, Karin Ingold, Manuel Fischer, Isabelle Schläpfer and Philip Leifeld (2020). Boundary spanning through engagement of policy actors in multiple issues. Policy Studies Journal. 50(1):35-64.
3.797 (2019), #10–Political Science, #6–Public Administration)

2019 **Brandenberger, Laurence**, Giona Casiraghi, Vahan Nanumyan and Frank Schweitzer (2019). Quantifying Triadic Closure in Multi-Edge Social Networks. Proceedings of the 2019 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM). IEEE: 307–310.

2019 **Brandenberger, Laurence** (2019). Predicting Network Events to Assess Goodness-of-Fit for Relational Event Models. Political Analysis. 27(4):556 - 571.
3.361 (2016), #5–Political Science; [link to replication files]

2019 Malang, Thomas, **Laurence Brandenberger** and Philip Leifeld (2018). Networks and Social Influence in European Legislative Politics. *British Journal of Political Science*. 49(4):1475 - 1498.
3.316 (2016), #6–Political Science; [link to replication files]

2018 **Brandenberger, Laurence** (2018). Trading Favors Examining the Temporal Dynamics of Reciprocity in Congressional Collaborations Using Relational Event Models. *Social Networks*, 54:238-253.
2.462 (2016), #14–Sociology; [link to replication files]

Peer-Reviewed Book Chapters

2020 **Brandenberger, Laurence** (2020). Interdependencies in Conflict Dynamics: Analyzing Endogenous Patterns in Conflict Event Data Using Relational Event Models. In: Computational Conflict Research. Deutschmann, Emanuel, and Jan Lorenz and Luis G Nardin and Davide Natalini and Adelbert FX Wilhelm (eds.). Springer: 67-80.

Articles Under Review

2023 **Brandenberger, Laurence** and Theodora Bujaroska. Sitting next to you: Effects of seating arrangements on parliamentary collaborations. Submitted.

2022 Russo, Giuseppe, Christoph Gote, **Laurence Brandenberger**, Sophia Schlosser, Frank Schweitzer. Disentangling Active and Passive Cosponsorship in the U.S. Congress. Under Review at ACL2023, the 61st Annual Meeting of the Association for Computational Linguistics. ArXiv Preprint https://arxiv.org/abs/2205.09674.

2021 Salamanca, Luis, **Laurence Brandenberger**, Lilian Gasser, Sophia Schlosser, Marta Balode, Fernando Perez-Cruz, Frank Schweitzer. Towards a Parliamentary Database—Processing over 250,000 PDF Pages and Structuring their Content. Under Review.

2021 Gote, Christoph, **Laurence Brandenberger**, Frank Schweitzer. The Transient Nature of Social Hierarcies: The Case of the Bitcoin Open Source Software Collaboration Team. Refurmulate and Resubmit.

Articles in Preparation and Pre-Prints

2023 **Brandenberger, Laurence**, Luis Salamanca, et al.. DemocraSci: A Knowledge Graph On the Swiss Parliament. Paper in preparation for *Nature. Data Descriptor*.

2023 **Brandenberger, Laurence**, Luis Salamanca, Sophia Schlosser, Anja Heidelberger. Issue engagement in the Swiss Parliament over the past 130 years. Paper to be presented at the Swiss Political Science Association Annual Congress 2023.

2023 Daria Izzo, Sophia Schlosser, Luis Salamanca, **Brandenberger, Laurence**. How has Parliamentary Populism in Switzerland evolved over time? Evidence from the Swiss parliamentary speeches spanning 130 years. Paper to be presented at the Swiss Political Science Association Annual Congress 2023.

2023 Sophia Schlosser, Vincent Jung, Giuseppe Russo, Luis Salamanca, **Laurence Brandenberger**. Word Embeddings: how they can provide us with meaningful ideological representations of Swiss politicans. Paper to be presented at the Swiss Political Science Association Annual Congress 2023.

2023 Sophia Schlosser, **Laurence Brandenberger**. Understanding the evolution of collaboration dynamics within the US House across the past 40 years. Paper to be presented at the Swiss Political Science Association Annual Congress 2023.

2022 **Branenberger, Laurence**. Who gets their agenda passed a vote? Meta-review on legislative bill passage.

2019 Leifeld, Philip and **Laurence Brandenberger** (2017). Endogenous Coalition Formation in Policy Debates. ArXiv Preprint arXivpreprintarXiv:1904.05327.

Data Documentations and Reports

2014   Meyer Schweizer, Ruth, Ben Jann, Laurence Brandenberger und Simon Hugi (2014). Gesamtauswertung der Mitgliederbefragung an den Schweizer Seniorenuniversitäten 2012. Technical Report. University of Bern.

2012   Jann, Ben and Laurence Brandenberger (2012). An Experimental Survey Measuring Plagiarism Using the Crosswise Model. Codebook and Documentation. University of Bern.

2012   Jann, Ben and Laurence Brandenberger (2012). An Experimental Survey Measuring Plagiarism Using the Randomized Response Technique. Codebook and Documentation. University of Bern.

Last updated: January 2023