



Ramona Roller

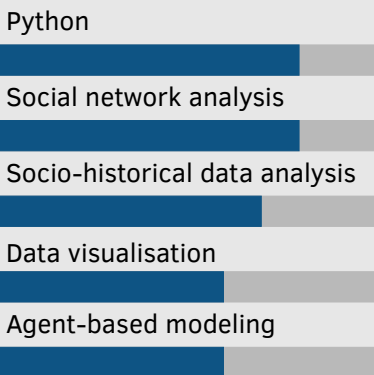
Quantitative social scientist

- 15 December 1991
- Weinbergstrasse 56/58, Switzerland
- <https://www.sg.ethz.ch/team/people/rroller/>
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About me

Social scientist with a strong quantitative background. Fascinated by complex systems and their mathematical descriptions. Currently working on reconstruction methods for historical letter correspondence networks. Future aim: Develop spatio-temporal null models for historical letter correspondence networks.

Skill



(*)[The skill scale is from 0 (Fundamental Awareness) to 5 (Expert).]

Education

since 01/2018

Ph.D. candidate in data-driven modeling of social systems ETH Zurich, CH

- *Develop quantitative statistical methods to analyse socio-historical data.*
- *Construct and visualise temporal network models.*
- *Expected graduation: June 2022.*

09/2018

Participant at EPFL's Reproducibility in Computational Science Summer School Magliaso, CH

- *Acquired profound skills in writing reproducible research papers and data management. Specific tools include Git, R Shiny, and Renga.*

09/2015 - 12/2017

M.Sc. Computational Science University of Amsterdam, NL

- *Thesis: Optimising Resource Allocation in Socio-economic Systems with the Minority Game: A Case Study on Electric Cars in Amsterdam.*

06/2017 - 07/2017

Participant at SFI's Complex Systems Summer School Santa Fe Institute, USA

- *Passed highly competitive world-wide application process.*
- *Deepened numerical and computational methods for the analysis of complex systems.*

10/2011 - 07/2014

B.Sc. Psychology with Cognitive Science University of Sussex, UK

- *Thesis: Differences between conscious and unconscious learning of social rules.*

Research and Work Experience

11/2014 - 06/2015

Intern at Netherlands Organisation for Applied Scientific Research (TNO) Soesterberg, NL

- *Developed a Linked Data model to cope with power cuts caused by flooding.*
- *Applied qGIS to visualise power stations and water levels.*

06/2013 - 06/2014

Junior research associate at Department of Informatics University of Sussex, UK

- *Developed a novel method to quantify and visualise cognitive chunks based on the sequences of participants' drawings of electrical circuit diagrams.*

Publications

- Roller, R. and Schweitzer F., 2021: A new theory of social roles in networks. *socarxiv*. doi=10.31235/osf.io/xkafb.
- Roller, R. 2021: Vectorizing maps to generate geo-spatial data on territories of the Holy Roman Empire. *socarxiv*. doi=10.31235/osf.io/y9v68.

Conference attendances and research visits

09/2021

European Conference on Social Network Analysis (EUSN)(online)

- *Talk: 'Polarization in the 16th century: Ideological groups during the Reformation'.*
- *Access talk at https://www.sg.ethz.ch/team/ramona_roller/data/2021-09-08_EUSN.pdf*

07/2021

HNR conference (Historical Network Research) (online)

- *Talk: 'Role detection in networks: Social differentiation during the Reformation'.*
- *Access talk at https://www.sg.ethz.ch/content/team/Ramona_Roller/data/2021-07-01_HNR.pdf*

- 04/2021 HNR lunch lecture (Historical Network Research) (online)
 • Talk: *'Modeling Time in Interactions: Temporal paths in a 16th century network'*.
 • Access talk at https://www.sg.ethz.ch/data/2021-04-15_HNR.pdf
- 03/2021 Geography meets Digital Humanities: Neuere Ansätze raumbezogener Modellierung Erlangen (online), DE
 • Talk: *'Räumliche Aspekte der Konfessionalisierung: Vektorisierte Territorien des HRR erstellen und nutzen'*.
 • Access talk at https://www.sg.ethz.ch/team/ramona_roller/data/2020-03-12_Erlangen.pdf
- 10/2020 Theortellings Workshop der DHd AG Theorie Leipzig, DE
 • Talk: *'Warum wurde Luther protestantisch? Erklärungsnarrative mit statistischen Modellen entwickeln und zur Theoriebildung nutzen'*.
 • Access talk at https://www.sg.ethz.ch/team/ramona_roller/data/2020-10-09_Leipzig.pdf
- 09/2020 CUDAN Satellite at NetSci Rome (online), IT
 • Talk: *'Letter network to test theory'*.
 • Access talk at https://www.sg.ethz.ch/team/ramona_roller/data/2020-09-11_Rome.pdf
- 03/2020 Digital Humanities im deutschsprachigen Raum Paderborn, DE
 • Talk: *'Wie steuert geografische Distanz das Briefkorrespondenznetzwerk der Reformatoren? Eine Netzwerkanalyse'*.
 • Access talk at https://www.sg.ethz.ch/team/ramona_roller/data/2020-03-05_Paderborn.pdf
- 09/2019 European Conference on Social Network Analysis (EUSN) Zurich, CH
 • Talk: *'Statistical inference for letter network of Reformation'*.
 • Access talk at https://www.sg.ethz.ch/team/ramona_roller/data/2019-09-11_Zurich.pdf
- 07/2019 International Conference on Computational Social Science (IC²S²) Amsterdam, NL
 • Talk: *'Network regression reveals factors driving the letter correspondence of 16th century reformers'*.
 • Access talk at https://www.sg.ethz.ch/team/ramona_roller/data/2019-07-18_Amsterdam.pdf
- 06/2019 Research visit at Austrian Centre for Digital Humanities Vienna, AU
 • *Enlarged skills on vectorisation of raster maps and management of spatial data.*
 • Talk: *'A workflow for automated vectorisation of raster maps'*.
 • Access talk at https://www.sg.ethz.ch/team/ramona_roller/data/2019-06-17_Vienna.pdf
- 01/2019 Research Visit at Heidelberg Academy of Sciences and Humanities Heidelberg, DE
 • Talk: *'Das Briefkorrespondenznetzwerk der Reformatoren'*.
 • Access talk at https://www.sg.ethz.ch/team/ramona_roller/data/2019-01-21_Heidelberg.pdf

Organisation of scientific events

since 01/2021

Co-organiser of the workshop 'Opportunities in computerised analyses of historical letter correspondences' Heidelberg, GER

- *Teamed-up with project 'Theologenbriefwechsel im Südwesten des Reichs in der Frühen Neuzeit (1550-1620) led by Prof. Strohm in Heidelberg.*

- *Organised talks, discussion groups and accomodations for 30 participants.*

- *Speakers include international researchers from the humanities, computer- and data sciences.*

- *Planned date: Spring 2022*

06/2018

Co-organiser and participant at Big Data in the Field Weekend Seminar Berlin, GER

- *Organised talks, workshops, discussion rounds, and accomodation for 50 participants and 6 speakers.*

- *Speakers included German Data Science professors and representatives of German companies that apply Big Data-based technologies.*

Awards

09/2020

Student grant for NetSci conference

01/2020

Travel grant for DHd conference (Digital Humanities im deutschsprachigen Raum)

02/2012 - 12/2017

Member of German National Academic Foundation

07/2014

Stuart Sutherland Prize for an outstanding undergraduate dissertation in psychology at the University of Sussex