MARION HOFFMAN
—— Academic resume ——

Education

Mar 2017 - Sep 2021

ETH ZÜRICH
Zürich, SWITZERLAND

Ph.D. in Science for the thesis "Studying face-to-face interactions in groups: Models and applications"
Main supervisor: Christoph Stadtfeld, Co-supervisor: Tom A.B. Snijders

Sep 2015 - Sep 2016

PARIS-SACLAY UNIVERSITY
Paris, FRANCE

MS.c. Degree in Network Industries and Digital Economics.
Awarded with Highest Honours.

Sep 2012 - Sep 2016

CENTRALESUPELEC (previously Supélec)
Gif-sur-Yvette, FRANCE

"Grande Ecole d'ingénieur": MS.c. Degree in Science and Engineering.
Major in Computer Science.
Awarded with "excellent results" (equivalent of Highest Honours).

Sep 2010 - Aug 2012

LYCEE PIERRE DE FERMAT
Toulouse, FRANCE

French classes préparatoires: intensive preparation program for the entry exam to French "grandes écoles".
Major in Math and Physics and minor in Computer Science.

Sep 2007 - Aug 2010

LYCEE PIERRE DE FERMAT
Toulouse, FRANCE

French High school. Baccalauréat (High school diploma) in Science.
Awarded with "félicitations du jury" (equivalent of Highest Honours).

Contact

✉ **Email**
marion.hoffman@iast.fr

🏠 **Address**
1 Esplanade de l'Université
Bureau T.461
31080 Toulouse, France

📱 **Mobile Phone**
+33 6 31 23 69 24

🌐 **Links**
twitter.com/marion_hof
github.com/marion-hoffman

Personal

Citizenship: French

Date of birth: 22.03.1993

Languages:
- French (native)
- English (fluent)
- Spanish (intermediate)
- Italian (beginner)
- Dutch (beginner)

Areas of expertise

Research topics	Social network analysis, network statistical models, dynamics of face-to-face interactions, dynamics of social groups, formation of social groups.
Statistics	Generalized linear models, exponential families, survival models, Bayesian models, MCMC techniques. Statistical network models: ERGM, SAOM, REM, DyNAM.
Programming	R, Java, C++, Matlab, Python, HTML, Javascript, PHP, SQL. Contributor to the Goldfish package (DyNAM) and the ERPM package (personal project).
Data collection	Online surveys with Qualtrics, Detection of social interactions with RFID badges, social experiments in virtual reality environments.

Awards

- **Best presentation award** at the International Conference on Complex Networks and Their Applications, 2018 in Cambridge (UK).
- **Best Student project** at the the Mediterranean School of Complex Network, 2018 in Salina (Italy).
- **Complete research grant** for the Master Thesis awarded by the Zeno Karl Schindler Foundation (approx. 10 000 Frcs).
- **IBM Ambassador** for Supélec, 2014-2015. Participation in the **Best Students Recognition Event 2014**.

Academic Experience

Oct 2021 - Oct 2024 (expected)

RESEARCH FELLOW at the Institute of Advanced Study in Toulouse
Toulouse, FRANCE

This post-doc aims at furthering statistical methods for social group data and contributing to projects including such data.

Mar 2017 - Sep 2021

Ph.D. CANDIDATE at the Chair of Social Networks, ETH Zürich
Zürich, SWITZERLAND

My thesis aimed at better understanding and modelling the dynamics of social interactions in groups in four projects. Additional tasks included contributing to the R package "Goldfish", collecting data for the "Swiss StudentLife Study", assisting for the course "Network Modeling", and supporting research assistants at the chair.

Mar 2020

RESEARCH VISITOR at the University of Oxford
Oxford, UNITED KINGDOM

I was invited by Prof. Dr. Melinda Mills to work on co-authored papers with Dr. Per Block, and present my work at the Leverhulme Centre for Demographic Science.

Oct 2019 - Jan 2020

RESEARCH VISITOR at the University of Groningen
Groningen, THE NETHERLANDS

During this visit, I developed the content of my second Ph.D. project together with Prof. Dr. Tom A.B. Snijders. I also participated to colloquiums and presented at the internal seminar of the Sociology department.

Apr 2016 - Feb 2017

MASTER THESIS and RESEARCH ASSISTANT at the Chair of Cognitive Science, ETH Zürich
Zürich, SWITZERLAND

My thesis aimed at understanding the impact of space on crowd distributions in collaborative and competitive contexts, using virtual reality experiments and agent-based simulations. It was awarded the maximal grade (A).

Oct 2015 - Apr 2016

RESEARCH PROJECT at University Paris-Sud
Paris, FRANCE

In this project, I carried out an econometrical analysis of the impact of cultural values on online-privacy concerns. The study was based on Hofstede's theory of cultural dimensions and Eurobarometer data.

Jan 2014 - Jun 2014

RESEARCH PROJECT at Supélec
Gif-sur-Yvette, FRANCE

In this project, I designed and developed an algorithm for disambiguating the locations of users in an online social network. The disambiguation was based on machine learning techniques and public data.

Industry Experience

Oct 2015 - Apr 2016

INDUSTRY PROJECT for Nexpert Santé
Paris, FRANCE

For this project, I defined and developed an algorithm for a web application designed for medical diagnosis. The algorithm employed machine learning techniques to cluster, understand, and predict users' behaviors.

Jan 2015 - Jul 2015

R&D INTERN at the Geoscience Research Center of Total E&P UK
Aberdeen, UNITED KINGDOM

This research project consisted in the definition and development of a model that can simulate flows in porous rocks on Matlab. I used a network representation of porous materials and applied a multi-scale algorithm on numerical calculation of physical phenomena, for parallel computing.

Jul 2014 - Jan 2015

SOFTWARE DEVELOPEMENT INTERN at Météo France International
Toulouse, FRANCE

During this internship, I designed the specifications and prototyped a data-platform based on web languages. The software aimed at treating and visualizing automatic weather information and forecast.

Publications

- Hoffman, M. & Chabot T. (2021). *The Role of Preference-Based Selection in Socioeconomic Homophily: Evidence from a Three-Week Summer Camp.* Manuscript in preparation.

- Hoffman, M., Elmer, T., & Stadtfeld, C. (2021*). Dyadic isolation: The influence of depressive symptoms on face-to-face interactions in groups.* Manuscript in preparation.

- Hoffman M., Thrash T., Schinazi V., Kapadia M. & Hölscher C. (2021). Social and spatial predictors of collective search behaviors. Manuscript in preparation.

- Hoffman M., Block P., Snijders T.A.B. (2020). Modeling partitions of individuals. *arXiv preprint arXiv:2009.13974.*

- Vörös A., Stadtfeld C., Boda Z., Elmer T., Hoffman M., Mepham K., Raabe I.J. (2021). The Swiss StudentLife Study: Investigating the emergence of an undergraduate community through dynamic, multidimensional social network. *Social Networks 65, 71-84.*

- Block, P., Hoffman, M., Raabe, I. J., Dowd, J. B., Rahal, C., Kashyap, R., & Mills, M. C. (2020). Social network-based distancing strategies to flatten the COVID-19 curve in a post-lockdown world. *Nature Human Behaviour 4(6),* 588-596.

- Graser, K., Wang, Y., Hoffman, M., Bonanomi, M. M., Kohler, M., & Hall, D. M. (2019). Social Network Analysis of DFAB HOUSE: A Demonstrator of Digital Fabrication in Construction. *Engineering Project Organization Conference*, P. S. Chinowsky and J. J. Taylor, eds., Vail, CO, 1–21.

- Hoffman, M., Block, P., Elmer, T., & Stadtfeld, C. (2020). A model for the dynamics of face-to-face interactions in social groups. *Network Science 8(S1)*, 1-22.

Conference presentations

- Block, P., Hoffman, M., Raabe, I. J., Dowd, J. B., Rahal, C., Kashyap, R., & Mills, M. C. (2020, July 10). *Social network-based distancing strategies to flatten the COVID-19 curve in a post-lockdown world* [Conference presentation]. Costnet Conference on Covid-19, Munich, Germany.
- Hoffman M., Block P., Snijders T.A.B. (2020, July 13-17). *From dyads to groups: A partition model for non-overlapping groups* [Conference presentation]. XXXVIIV Sunbelt Conference, Paris, France.
- Hoffman M., Block P., Snijders T.A.B. (2019, September 9-12). *A partition model for membership of non-overlapping groups* [Conference presentation]. 4th European Conference on Social Networks, Zürich, Switzerland.
- Hoffman M., Block P., Elmer T. & Stadtfeld C. (2018, December 11-13). *DyNAM-i: a statistical model for the analysis of face-to-face interactions* [Conference presentation]. 7th International Conference on Complex Networks and Their Applications, Cambridge, UK.
- Hoffman M., Block P., Elmer T. & Stadtfeld C. (2018, June 26-July 1). *A statistical model for the analysis of face-to-face interactions* [Conference presentation]. XXXVIII Sunbelt Conference, Utrecht, the Netherlands.

Workshops and schools

- Teaching assistant for the workshop "*Goldfish: Estimating Network Event Models*" on 2019, September 12, at the 4th European Conference on Social Networks, Zürich, Switzerland.
- Teaching assistant for the workshop "*Relational Events: Estimating Dynamic Network Actor Models (DyNAMs) with the Goldfish Software*" on 2018, June 27, at the XXXVIII Sunbelt Conference, Utrecht, the Netherlands.
- Teaching assistant for the workshop "*Relational Events: Estimating Dynamic Network Actor (DyNAM) Models with the Goldfish Software*" on 2019, September 12, at the 3rd European Conference on Social Networks, Mainz, Germany.
- Participation to the "*V Mediterranean School of Complex Networks*" on 2018, September 1-8, in Salina, Italy.
- Participation to the "*9th Winter School on Longitudinal Social Network Analysis*" on 2017, February 6-10, in Norrköping, Sweden.

Other activities

- Member of the **association "Telejob"** at ETH Zürich from 2018 to 2020: organization of events, workshops, and websites to help students find a job after their studies. **Director of the ETH hackathon "PolyHACK"** in 2018, **Vice-president** of Telejob in 2019.
- Member of the **student board of Supélec** in 2013-2014: organization of the campus life, of student events (up to 5000 persons), and management of relations between students and companies.
- Member of the **association "Cheer up"** from 2012 to 2014: support for children with cancer.
- Member of the **association "SMS"** from 2012 to 2014: filming and video mounting.
- **Sports:** volleyball (competition), climbing, hiking.