Sune Lehmann

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Profile

My work focuses on quantitative understanding of social systems based on massive data sets. A physicist by training, my research draws on approaches from the physics of complex systems, machine learning, and statistical analysis. I work on large-scale data, but also collect my own high-quality data to understand human communication networks across face-to-face interactions, telecommunication, and online social networks. For example, my group initiated *SensibleDTU:* a large project which used smartphones to measure the minute-by-minute social interactions and mobility of 1000 freshman students at DTU across 2.5 years. I am the lead author of multiple high impact papers, e.g. *PNAS* 115, 12603 (2018), *Nature Human Behaviour* 2, 485 (2018), *PNAS* 113, 9977 (2016), *Nature* 466, 761 (2010) and *Nature* 444, 1003 (2006).

Employment

- Professor. DTU Compute, 2019-present
- *Associate Professor*. DTU Compute, 2012–2019.
- *Adjunct (full) Professor*. Department of Sociology, University of Copenhagen. 2017-present.
- *Adjunct Associate Professor*. Niels Bohr Institute, 2013–2018.
- *Assistant Professor*. DTU Informatics, 2010–2012.
- *Postdoc*. Institute for Quantitative Social Science, Harvard University and Northeastern University, (2009–2010). Center for Complex Network Research, Department of Physics, Northeastern University and Dana Farber Cancer Institute, Harvard University, (2007–2009).

Education

- *Ph.D*. DTU Informatics. The Structure of Complex Networks. 2004–2007.
- *M.Sc.*, Physics, The Niels Bohr Institute, 2000–2003.
- *B.Sc.*, Physics, The Niels Bohr Institute, 1997–2000.

Selected Funding (as PI)

- *Danish Council for Independent Research*. Sapere Aude: Starting Grant, 2015-2018.
- *Villum Foundation*, Young Investigator Program, 2012-2017.

Positions of trust

- *Associate Director*, Center for Social Data Science (SODAS), University of Copenhagen.
- Member of The *Young Academy* under the Royal Danish Academy of Sciences and Letters 2012-2017.
- *Academic Editor* for PLOS One, Applied Network Sciences.
- *Reviewer* for e.g. Science, Nature, Proceedings of the National Academy of Sciences, USA,
- *Reviewer* for e.g. NSF (US), ANR (Agence Nationale Recherche, France), Horizon 2020.
- Executive Board member Network Science Society.
- Member of PLOS Data Guidelines Board.
- Member of international PhD evaluation committees: Umeå University, Northeastern University.
- Member Tenure Track Appointment Committee (Aalto University, 2016).

Honors & Prizes

- Copenhagen Kongres & Event Award, 2013.
- Corrits Legat, 2012.
- Reinholdt W. Jorck's prize,2011.
- My work as received world-wide press coverage (e.g. New York Times, Scientific American), as well as multiple US television pieces.

Research Visits

- Visiting Scholar, Center for Complex Network Research, Northeastern University, Boston MA, June-July, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018.
- Visiting Scholar, Santa Fe Institute, Santa Fe, NM, Jan 2009.
- Visiting Scholar, U.C. Berkeley, CA,Jan 2008.
- Visiting Scholar, Kavli Institute of Theoretical Physics, U.C. Santa Barbara, CA. Jan–Jun 2005, Feb 2006, Apr 2007.

Selected Talks (invited/keynote)

- Complex Networks 2018, Cambridge, UK 2018.
- Pujiang Innovation Forum. Understanding Complexity to Foster Innovation, Shanghai, China 2018. *Event organized by Nature Research*.
- Next Generation Network Analytics. Royal Statistical Society, London, 2018
- NetSciX. Conference and School of Complex Networks. Hilton, Tel-Aviv, Israel, 2017.
- Experiments and Models of Social Networks: Cooperation, Conflict and Trust. Royal Danish Academy of Sciences and Letters, 2016.
- GESIS Computational Social Science Winter Symposium 2015 Cologne, Germany.
- DPG Spring Meeting, TU Berlin, Germany, 2015

Publications (selected)

- The chaperone effect in Scientific Publishing. V. Sekara, P. Deville, S.E. Ahnert, A.-L. Barabási, R. Sinatra, and S. Lehmann. *PNAS* 115 (50). 12603–12607, 2018.
- The fundamental structures of dynamic social networks. V. Sekara, A. Stopczynski, S. Lehmann. *PNAS* 113 (36). 9977–9982, 2016.
- Link communities reveal multiscale complexity in networks. YY Ahn, JP Bagrow, S Lehmann. *Nature* 466 (7307), 761-764, 2010.

Conference organization

- General Chair for *NetSci13* in Copenhagen. *(NetSci* is the main conference in my area with 400+ participants).
- Senior Program Committee (SPC) and PC member of many major Comp. Sci. conferences (e.g. WWW, ICWSM, IC2S2).