

CURRICULUM VITAE

Fredrik Liljeros

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Higher education qualification(s)

2001 10 29 Bachelor Degree in Sociology. Department of Sociology, Stockholm University

Degree of Doctor

2001-10-29 Fil. Doctor in Sociology, Stockholm University
Title: The Complexity of Social Organizing
Supervisor: Peter Hedström

Postdoctoral positions

2001 May – 2001 Nov Researcher at SU
2001 Nov - 2003 July Post Doc at the Swedish Institute for Diseases Control
2003 July – 2006 Dec A four year position as a researcher (Forskarassistent) with 80% free research time (SU)
2007 Jan – 20011 June Associate Professor (Universitetslektor) in Sociology at Stockholm University

Qualification required for appointment as a docent

2007 Docent degree in Sociology at Stockholm University

Present position

2011 July - Professor in Sociology at Stockholm University

Interruptions in research

2002 July – 2003 Feb Paternal leave
2007 April – 2008 Sep Paternal leave

Supervision

2022- Co-supervisor for Ph D student Nishi Dave (Dep. Of Medicine) Karolinska Institutet
2015-2022 Co-supervisor for Ph D student Lina Nerlander (Department of Public Health Sciences) Karolinska Institutet
2012-2017 Head supervisor for Ph D student Hernan Mondani, Stockholm University.

- 2012-2016 2015 Co-supervisor for Ph D student Susanne Strömdahl (Department of Public Health Sciences) Karolinska Institutet.
- 2011-2016 Head supervisor for Ph D student Amir Rostami, Stockholm University.
- 2010-2016 Co-supervisor for Ph D student Jens Malmros (Department of Math) Stockholm University.
- 2010-2014 Head supervisor for Ph D student Veronika Fridlund, Stockholm University.
- 2009-2013 Head supervisor for Ph D student Lu Xin (Department of Public Health Sciences) Karolinska Institutet.
- 2008-2012 Co-supervisor for Ph D student Linus Bengtsson, (Department of Public Health Sciences) Karolinska Institutet.
- 2005-2008 Head supervisor for Ph D student Monica K Nordvik, Stockholm University.
- 2004-2010 Co-supervisor for Ph D student Martin Camitz, (Medical Epidemiology and Biostatistics) Karolinska Institutet.
- 2002-2005 Co-supervisor for Ph D student Mikael Klingvall, Stockholm University.

Grants

0412-0712 DYSONET; An European Commission funded research project (STREP),

under the NEST/Pathfinder initiative of FP6.) 200 000 Euro (Coordinated by P. Argyrakis at Aristotle University of Thessaloniki).

M. Camitz and F. Liljeros "StatFlu is a visual tool for predicting hospital load in Sweden in the event of an influenza pandemic " The Swedish board for public Health and Welfare. 134 000 skr

V. Halvarsson and F. Liljeros "Re-infection of STI and STI counselling" The Swedish board for public Health and Welfare. 712 962 skr

M. K. Nordvik and F. Liljeros "Needle sharing networks" The Swedish board for public Health and Welfare. 153 684 skr

F. Liljeros The implication of allowing MSM donate blood. The Swedish board for public Health and Welfare. 65 000 skr

F Liljeros, M, Nordvik and Halvarsson V. An international workshop on Chlamydia, FAS 50 000 skr

PUBLICATIONS
FREDRIK LILJEROS

Citations ISI web of science: 4888 (Google Scholar: 9008)

h-index ISI web of science: 24 (Google Scholar: 31)

Peer-reviewed original articles

- 2021 Pei, S., Liljeros, F., and J.L. Shaman "Identifying asymptomatic spreaders of antimicrobial-resistant pathogens in hospital settings" PNAS Vol. 118 No. 37.
- 2021 Chen, S., Lu, X. Liljeros, F. and L.E.C. Rocha "Indirect inference of sensitive variables with peer network survey" Journal of Complex Networks 9 (6), cnab034.
- 2020 LEC Rocha, V Singh, M Esch, T Lenaerts, F Liljeros, A Thorson "Dynamic contact networks of patients and MRSA spread in hospitals" Scientific reports 10 (1), 1-10.
- 2019 Chen, X. Zhou, T. Feng, L., Liang, J., Liljeros, F. Havlin, S and Y Hu (2019) "Nontrivial resource requirement in the early stage for containment of epidemics" Physical Review E 100 (3), 032310.
- 2019 Pei, S. Morone, F, Liljeros, F, Makse, H and JL Shaman (2018) "Inference and control of the nosocomial transmission of methicillin-resistant Staphylococcus aureus" Elife 7, e40977
- 2018 Pei, S. Morone, F., Liljeros, F., Makse, H. Shaman, J.L. "Inference and control of the nosocomial transmission of methicillin-resistant Staphylococcus aureus" Elife 7, e40977
- 2018 Hansson, D, Fridlund, V., Stenqvist, K. Britton, T. and F Liljeros (2018) "Inferring individual sexual action dispositions from egocentric network data on dyadic sexual outcomes" PLoS one 13 (11)
- 2018 Rostami, A, Mondani, H. Liljeros, F. and C Edling (2018) "Criminal organizing applying the theory of partial organization to four cases of organized crime" Trends in Organized Crime 21 (4), 315-342
- 2017 Strömdahl, S, Liljeros, F, Thorson, A.E., Persson, K and B.C. Forsberg "HIV testing and prevention among foreign-born Men Who have Sex with Men: an online survey from Sweden" BMC public health 17 (1), 139
- 2017 Rocha, L.E.C., Thorson, A.E. Lambiotte, R, and F Liljeros "Respondent-driven sampling bias induced by community structure and response rates in social networks" Journal of the Royal Statistical Society: Series A (Statistics in Society) Volume 180, Issue 1
- 2016 Malmros, J. Liljeros, F. and T. Britton "Respondent-driven sampling and an unusual epidemic" Journal of Applied Probability 53 (2), 518-530

- 2015 Strömdahl, S., Xin, L. Liljeros, F., Bengtsson, L. and A. Thorsson "Implementation of Web-based Respondent Driven Sampling among Men who have Sex with Men in Sweden" PLOS ONE 10(10) Article Number: e0138599 Published: OCT 1 2015
- 2015 Min, B, Liljeros, F. and H. Makse "Finding influential spreaders from human activity beyond network location" Plos One 07/2015; 10(8). DOI:10.1371/journal.pone.0136831
- 2015 Holme, P. and F. Liljeros "Mechanistic models in computational social science" Frontiers in Physics Frontiers in Physics 07/2015; 3. DOI:10.3389/fphy.2015.000787
- 2014 Ohst, J.; Liljeros, F.; Stenhem, M. and P Holme "The network positions of methicillin resistant Staphylococcus aureus affected units in a regional healthcare system" EPJ DATA SCIENCE Volume: 3 Issue: 1 Article Number: 29
- 2014 Albert J. et al. (2014) "Risk of HIV transmission from patients on antiretroviral therapy: A position statement from the Public Health Agency of Sweden and the Swedish Reference Group for Antiviral Therapy" Scandinavian Journal of Infectious Diseases, 2014; Early Online: 1–5
- 2014 Mondani H, Holme P, Liljeros F (2014) Fat-Tailed Fluctuations in the Size of Organizations: The Role of Social Influence. PLoS ONE 9(7): e100527. doi:10.1371/journal.pone.0100527
2014. Holme P. and Liljeros F (2014) "Birth and death of links control disease spreading in empirical contact networks" Scientific Reports 4, Article number: 4999 doi:10.1038/srep049992014*
- 2013 Bengtsson L, Lu X, Liljeros F, et al. Strong propensity for HIV transmission among men who have sex with men in Vietnam: behavioural data and sexual network modeling. *BMJ Open* 2014;4:e003526. doi:10.1136/bmjopen-2013-003526
- 2013 Tumminello, C. Edling, F. Liljeros, R.N. Mantegna, J Sarnecki. The Phenomenology of Specialization of Criminal Suspects. *PLOS ONE* 8(11) MAY 15.
- 2013 L. Xin, J. Malmros, F. Liljeros, T. Britton. Respondent-driven sampling on directed networks. *ELECTRONIC JOURNAL OF STATISTICS* 7:292-322. DOI: 10.1214/13-EJS772
- 2012 L. Bengtsson L Xin, Q.C. Nguyen, M. Camitz, N. L. Hoang, T. A. Nguyen, F. Liljeros, A. Thorson. Implementation of Web-Based Respondent-Driven Sampling among Men Who Have Sex with Men in Vietnam. *PLoS ONE* 7(11): e49417. doi:10.1371/journal.pone.0049417
- 2012 L. K. Gallos, D. Rybski, F. Liljeros, S Havlin, and H A. Makse. How People Interact in Evolving Online Affiliation Networks. *Physical review X* 2:3.
- 2012 D. Rybski, S. Buldyrev, S Havlin, F. Liljeros H.A. Makse. Communication activity in a social network: relation between long-term correlations and inter-event clustering. *SCIENTIFIC REPORTS* 2:60. DOI: 10.1038/srep00560
- 2012 V. Antonella, A. Frigessi, F. Liljeros, M.K. Nordvik and B.F De Blasio. A Characterization of Internet Dating Network Structures among Nordic Men Who Have Sex with Men. *PLOS ONE* 7:7 e39717.

- 2012 S. Lee, L-E. C. Rocha, [F. Liljeros](#) and P. Holme. Exploiting temporal network structures of human interaction to effectively immunize populations. *PLoS ONE* 7 e36439.
- 2012 V. Halvarsson, S. Ström and [F. Liljeros](#). The prescription of oral contraceptives and its relation to the incidence of Chlamydia and abortion in Sweden 1997. *Scandinavian Journal of Public Health* February 40: 85-91.
- 2012 X. Lu, L. Bengtsson, T. Britton, M. Camitz, B. J. Kim, A. Thorson and [F. Liljeros](#). The sensitivity of respondent-driven sampling. *Journal of the Royal Statistical Society* Volume 175, Issue 1, pages 191–216.
- 2011 D. Rybski, Buldyrev S. V., Havlin S, [F. Liljeros](#) and H.A. Makse. Communication activity in social networks: growth and correlations. *EUROPEAN PHYSICAL JOURNAL B* 84(1): 147-159.
- 2011 T. Britton, M. Deijfen and [F. Liljeros](#). A Weighted Configuration Model and Inhomogeneous Epidemics. *JOURNAL OF STATISTICAL PHYSICS* 145(5):1368-1384.
- 2011 L. E. C. Rocha, [F. Liljeros](#) and P. Holme. Simulated epidemics in an empirical spatiotemporal network of 50,185 sexual contacts. *PLoS Comp. Bio* 7(3):e1001109. doi:10.1371/journal.pcbi.1001109
- 2011 P. D. Whitehead and [F. Liljeros](#). Heavy-Tailed Distribution of Seclusion and Restraint Episodes in a State Psychiatric Hospital. *The Journal of the American Academy of Psychiatry and the Law* 39:1- 93-99.
- 2010 M. Kitsak, L. K. Gallos, S. Havlin, [F. Liljeros](#), L. Muchnik, H. E. Stanley and H. A. Makse. Identification of influential spreaders in complex networks. *Nature Physics* 6 (11) 888-893.
- 2010 L. Rocha, [F. Liljeros](#) and P. Holme. Information dynamics shape the sexual networks of Internet-mediated prostitution. *Proc Natl Acad Sci U S A* 107(13):5706-5711.
- 2009 Rybski, D, Buldyrev, S., V Havlin, [Liljeros, F.](#) and Hernán A. Makse. Scaling laws of human interaction activity. *Proc Natl Acad Sci U S A* 106(31) 612640–12645.
- 2008 Chen Y., G. Paul, S. Havlin, [F. Liljeros](#) and H. Eugene Stanley. Finding a Better Immunization Strategy. *Physical Review Letters* 101:058701.
- 2007 [Liljeros, F.](#), J. Giesecke, and P. Holme. The contact network of inpatients in a regional healthcare system. A longitudinal case study. *Mathematical Population Studies* 14:269-284.
- 2007 Britton, T., M. K. Nordvik, and [F. Liljeros](#). Modeling sexually transmitted infections: The effect of partnership activity and number of partners on R-0. *Theoretical Population Biology* 72:389-399.
- 2007 De Blasio, B. F., A. Svensson, and [F. Liljeros](#). Preferential attachment in sexual networks. *Proc Natl Acad Sci U S A* 104(26): 10762-7.
- 2007 Chen Y., G. Paul, R. Cohen, S. Havlin, S. P. Borgatti, [F. Liljeros](#) and H. Eugene Stanley. Percolation theory applied to measures of fragmentation in social networks. *Phys Rev E Stat Nonlin Soft Matter Phys* 75:046107

- 2007 Chen Y., G. Paul, R. Cohen, S. Havlin, S. P. Borgatti, F. Liljeros and H. Eugene Stanley. Percolation theory and fragmentation measures in social networks. *Physica A* 378, 11.
- 2007 Gallos L. K., Liljeros F, Argyrakis P, Bunde A, Havlin S. Improving immunization strategies. *Phys Rev E Stat Nonlin Soft Matter Phys* 75:045104.
- 2007 Nordvik, M. K., F. Liljeros A. Österlund and B. Herrman. Spatial Bridges and the Spread of Chlamydia: The Case of a County in Sweden. *Sexually Transmitted Diseases* 34(1): 47-53.
- 2006 Nordvik, M. K. and F. Liljeros. Transmission of sexually transmitted infections. *Sexually Transmitted Diseases* 33(6): 342-349.
- 2006 Camitz, M. and F. Liljeros. The effect of travel restrictions on the spread of a moderately contagious disease. *BMC Medicine* 2006 4(32): 1-10.
- 2004 Holme, P., C. R. Edling. and F. Liljeros. "Structure and time evolution of an Internet dating community." *Social Networks* 26(2): 155-174.
- 2003 Holme, P., Liljeros, F., Edling, C. R. and B.J Kim. "Network bipartivity." *Physical Review E* 68(5).
- 2004 Liljeros, F. (2004). "Sexual networks in contemporary Western societies." *Physica a-Statistical Mechanics and Its Applications* 338(1-2): 238-245.
- 2003 Liljeros, F., C. R. Edling and L.A.N. Amaral. "Sexual networks: implications for the transmission of sexually transmitted infections." *Microbes and Infection* 5(2): 189-196.
- 2003 Edling, C. R and F. Liljeros "Spatial Diffusion of Social Organizing: Modeling Trade Union Growth in Sweden, 1890-1940" *Geography and Strategy* vol. 20 267-192.
- 2001 Liljeros, F., C. R. Edling, et al. "The web of human sexual contacts." *Nature* 411(6840): 907-908.
- 2000 Dittrich, P., Liljeros, F., Soulier, A. & Banzhaf, W. "Spontaneous group formation in the seceder model", *Physical Review Letters* 84 (14):3205-3208

Peer-reviewed conference contributions

- 2006 Gallos, L. K., Cohen, R., Liljeros, F., Argyrakis, P., Bunde, A., and Havlin S. Attack strategies on complex networks. *COMPUTATIONAL SCIENCE - ICCS 2006, PT 3, PROCEEDINGS* 3993: 1048-1055

Review articles

- 2009 Liljeros, F. Human sexual networks. In *Encyclopedia Complexity and System Science*: Springer Science and Business Media.

Book Chapters

- 2016 Sexual and communication networks of Internet-mediated prostitution
The Oxford handbook of the economics of prostitution, 57-97