

AFFILIATION	CENTAI Institute Corso Inghilterra 3, 10138 Torino Italy	2023-present
	Leiden University Leiden Institute of Advanced Computer Science Niels Bohrweg 1, 2333 CA Leiden The Netherlands	2020-present
EDUCATION	Ph.D. Northeastern University , Network Science Institute	2020
	B.S. Lehigh University , Department of Physics	2014
	B.A. Lehigh University , Department of International Relations	2014
JOURNAL ARTICLES	Circulation of a digital community currency Carolina Mattsson, Teodoro Criscione, Frank Takes. <i>Scientific Reports</i> 13:5864. DOI: 10.1038/s41598-023-33184-1	2023
	CADENCE: Community-Aware Detection of Dynamic Network States Maxwell McNeil, Carolina Mattsson, Frank Takes, Petko Bogdanov. In <i>Proceedings of the 2023 SIAM International Conference on Data Mining (SDM)</i> 1-9. Society for Industrial and Applied Mathematics, 2023. DOI: 10.1137/1.9781611977653.ch1	
	Sarafu Community Inclusion Currency 2020-2021 Carolina Mattsson, Teodoro Criscione, William Ruddick. <i>Scientific Data</i> 9:426. DOI: 10.1038/s41597-022-01539-4	2022
	Functional structure in production networks Carolina Mattsson, Frank Takes, Eelke Heemskerk, Cees Diks, Gert Buiten, Albert Faber, Peter Sloot. <i>Frontiers in Big Data</i> 4:666712. DOI: 10.3389/fdata.2021.666712	2021
	Trajectories through temporal networks Carolina Mattsson & Frank Takes. <i>Applied Network Science</i> 6(1), 1-31. DOI: 10.1007/s41109-021-00374-7	2021
	Measuring the velocity of money Carolina Mattsson, Allison Luedtke, Frank Takes	2022 <i>arXiv:2209.01512</i>
SCIENTIFIC PREPRINTS	Networks of monetary flow at native resolution Carolina Mattsson	2019 <i>arXiv:1910.05596</i>
	Context-specific hybrid data collection for social ties in action Carolina E.S. Mattsson, Drew Margolin, Stefan Wojcik, David Lazer	<i>prep</i>
	Network analysis insights for cluster-oriented energy policy Gert Buiten, Cees Diks, Albert Faber, Eelke Heemskerk, Carolina Mattsson, Frank Takes, Peter Sloot. <i>Economisch Statistische Berichten</i> 106(4804).	2022
POLICY ARTICLES		

FUNDING	\$46,000 National Science Foundation	2019
	<i>INTERN Supplemental Funding Opportunity</i>	
	\$100,000 Bill & Melinda Gates Foundation	2016
	<i>with Guy Stuart, Executive Director, Microfinance Opportunities</i>	
	\$138,000 National Science Foundation	2015
	<i>Graduate Research Fellowship Program</i>	
INVITED TALKS	2023 Oxford Network Seminar, Oxford University	
	2023 Institute for Analytical Sociology Seminar, Linköping University	
	2022 1st Interdisciplinary Workshop on Firm-Level Supply Networks, Complexity Science Hub, Vienna, Austria	
	2022 NETWORKS Unit, Scuola IMT Alti Studi Lucca	
	2022 Socioeconomic Networks Workshop, Waseda University	
	2022 Informatics Institute & ILLC, University of Amsterdam	
	2022 Physics of Information and Quantum Technologies Group, Instituto de Telecomunicações, Instituto Superior Técnico, Universidade de Lisboa	
	2022 Networks Webinar Series, Janeway Institute Cambridge	
	2021 Network Science Institute, Northeastern University	
	2021 CID Growth Lab, Harvard Kennedy School	
	2021 ANET Lab, ELKH Centre for Economic and Regional Studies	
	2021 Eurasian Summit for Models of Society, Tokyo Institute of Technology	
	2020 Leiden Complex Networks Network Seminar, Leiden University	
	2020 Dutch Network Economics Day, Tinbergen Institute	
	2020 Economics Department Seminar, St. Olaf College	
	2020 The B.E.S.T. Workshop and Satellite of NetSci-X Tokyo on Complex Systems in Finance and Economics, Kyoto University	
	2019 CID Growth Lab, Harvard Kennedy School	
	2018 Telenor Research, Telenor	
HONORS & AWARDS	• Networks 2021 Best Pitch Talk Award	2021
	• NSF Graduate Research Fellowship	2015
	• NULab for Text, Maps, and Networks Fellowship	2014
	• Oles M. Smolansky Award for Academic Excellence in IR	2014
	• Donald T. Campbell Social Science Research Prize	2014
	• Lemmon Prize	2014
	• National Undergraduate Fellowship	2013
	• Malcolm J. Gordon, Jr. Physics Prize	2011
	• Lehigh University Academic Merit Award	2010
	• National Merit Scholar	2009
POLICY & INDUSTRY	Dutch Ministry of Economic Affairs and Climate, Statistics Netherlands, Grass-roots Economics, ING Bank, International Finance Corporation (World Bank Group), Microfinance Opportunities, Cignifi Inc., Telenor Research.	

TEACHING	LISS238: Social Network Analysis	2020 & 2022
	London Interdisciplinary Social Science Doctoral Training Partnership Kings College London Instructor: <i>planned and gave all lectures, facilitated programming exercises, adapted syllabus, adapted lecture materials.</i>	
SUPERVISION	DS2001: Programming with Data Social Science Practicum	2019
	Khoury College of Computer Sciences, Northeastern University Instructor: <i>wrote in-class programming exercises, wrote final project assignment, adapted syllabus, planned readings and facilitated discussion, held office hours, graded work and assigned final grades.</i>	
	Alireza Samiei	04-2023
	M.Sc. Media Technology, Leiden University Supervised thesis: "The Co-investment Network of the Dutch Entrepreneurial Ecosystem: a Complex Network Approach"	Leiden, NL
	Maxwell McNeil	04-2023
	Ph.D. Computer Science, visiting from UAlbany Co-supervised project: "Better time-dynamic graphs"	Leiden, NL
	Tristan Dielles	08-2022
	B.Sc. Computer Science, Leiden University Co-supervised thesis: "Description of transfer networks in football"	Leiden, NL
	Philippe Bors	08-2022
	M.Sc. Computer Science, Leiden University Supervised thesis: "Local network connectivity structure and link prediction"	Leiden, NL
	Jingsen Chen	04-2021
	M.Sc. Computer Science, Leiden University Supervised project: "Impact of Financial Activity On Trajectory Heuristics"	Leiden, NL
	Martijn Vlak	03-2021
	M.Sc. ICT in Business, Leiden University Co-supervised thesis: "Impact of the intelligent lockdown on the Dutch inter-industry transaction network"	Leiden, NL
	Niek Buwalda	08-2020
	M.Sc. Computer Science, Leiden University Reader for thesis: "Obtaining a network-driven understanding of the differences in user-level interaction within topical online communities"	Leiden, NL
	Roshni Padhi	07-2018
	Research Science Institute Summer Program, MIT Supervised project: "Following the Money: Analyzing and Modeling Mobile Money Networks in Developing Countries"	Boston, USA

LEADERSHIP	Dutch Network Science Society Symposium	
	Lead organizer, Leiden University	2022
	Workshop on Economic and Financial Networks	
	Lead organizer, CCS Salvador da Bahia	2023
	Co-organizer, NetSci Vienna	2023
	Co-organizer, CCS Mallorca	2022
	Lead organizer, NetSci-X Tokyo	2020
COMMENTS	Co-organizer, NetSci Burlington	2019
	Why is inequality bad?	
	<i>Social Science Space Blog</i> . SAGE Publishing	11/2019
	Theory and tools in the age of big data	
	<i>SAGE Ocean Blog</i> . SAGE Publishing	03/2019
REVIEWING	Expert Commentary: The Digital Currency Problem	
	<i>Undergraduate Mathematics and Its Applications Vol 40.2-3</i> . COMAP	2019
	• Nature Communications	• Scientific Reports
	• EPJ Data Science	• Royal Society Open Science
	• Japanese Economic Review	• Frontiers in Big Data
SERVICE	International Conference on Computational Social Science	
	Program Committee Member, IC2S2 Copenhagen	2023
	Program Committee Member, IC2S2 Chicago	2022
	Program Committee Member & Session Chair, IC2S2 Zurich	2021
	Program Committee Member, IC2S2 Cambridge, MA	2020
	Program Committee Member, IC2S2 Amsterdam	2019
	Southern Economics Association Annual Meeting	
	Discussant, Houston, TX	2021
	Discussant, New Orleans, LA	2020
	International Conference on Network Science	
	Program Committee Member, NetSci Vienna	2023
	Program Committee Member, NetSci Shanghai	2022
	Program Committee Member, NetSci-X Porto	2022
	Program Committee Member, Networks	2021
	Program Committee Member, NetSci Rome	2020
	Program Committee Member, NetSci-X Tokyo	2020
	School, Satellite, and Poster Committee Member, NetSci Burlington	2019
	International Conference on Complex Networks	
	Invited Speaker Liaison, CompleNet Boston	2018
ASSOCIATIONS	• Network Science Society	• European Economic Association
	• Dutch Network Science Society	• Society for Young Network Scientists

EDUCATION	Northeastern University Ph.D. Network Science	March 23, 2020
	Lehigh University B.S. Physics B.A. International Relations Eckardt Scholar Program	May, 2014
GRADUATE COURSES	<ul style="list-style-type: none">• Complex Networks• Dynamic Processes on Networks• Data Mining Techniques• Bayesian & Network Statistics• Algorithms• Social Networks• Social Capital & Resilience• International Economic Development• Economics of Money and Banking (Coursera)	
TRAININGS	Basic Project Management Leiden University, Leiden	2021
	Situational Leadership Leiden University, Leiden	2021
WORKSHOPS	Social Science Foo Camp Facebook Headquarters, Menlo Park, CA	2019
	Summer School in Economic Networks Mathematical Institute, University of Oxford	2018
	Complex Systems Summer School Santa Fe Institute, Santa Fe, NM	2015
TECHNICAL SKILLS	Programming & Statistics: Python, R, Gephi, QGIS, SPSS, Stata, Fortran Research Computing: Unix, Git, SLURM, AWS Command Line Interface Languages: Native in English & Swedish. Fluent in Spanish. A1 in Dutch.	