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Academic positions

- 2018 - present *Assistant professor (tenure track)*, Department of Statistics & Data Science, CMU
Courtesy appointment at the Heinz College of Information Systems and Public Policy, CMU
- Jan - Jun 2018 *Instructor*, Department of Statistics & Data Science, CMU

Education

- 2012 - 2017 **PHD** Sociology (*cum laude*), University of Groningen
Committee: Tom Snijders (promotor), Marijtje van Duijn
Thesis: Modeling the dynamics of networks and continuous behavior
Defense date: May 28, 2018
- 2010- 2012 **RESEARCH MASTER** Behavioral and Social Sciences (*summa cum laude*), specialization Psychometrics and Statistics, University of Groningen
Thesis: Co-evolution of social networks and continuous actor attributes
- 2008 - 2011 **MASTER** Applied Mathematics (*cum laude*), University of Groningen
Thesis: Consensus in networked multi-agent systems
- 2006 - 2010 **BACHELOR** Pedagogical Sciences, University of Groningen
Thesis: Validity assessment of language screening instrument SNEL
- 2005 - 2008 **BACHELOR** Mathematics (*cum laude*), University of Groningen
Thesis: Abelian sandpiles
- Jun 2019 **SUMMER INSTITUTE** in Computational Social Science, Princeton University (two weeks)
- Jul - Aug 2012 **SUMMER SCHOOL** in Computational Biology and Bioinformatics, University of Oxford (six weeks)
Project: Mixtures of forests models to detect coevolution in protein sequences

Publications

UNDER REVIEW / R&R

- 2024+ Feldbrugge, J. and **N.M.D. Niezink**. Orthogonality relations for conical functions of imaginary order [submitted]
- 2024+ Li, S. and **N.M.D. Niezink**. Meeting by design: Fostering cross-race and cross-nationality friendship in higher education through team experience [submitted]
- 2024+ Hong, A. and **N.M.D. Niezink**. The multiplex p_2 model: Mixed-effects modeling for multiplex social networks [R&R, Bayesian Analysis]
- 2024+ Li, S., D. Krackhardt and **N.M.D. Niezink**. The importance of project status for career success: A network perspective [second R&R submitted, Journal of Management]
- 2024+ Li, S., D. Krackhardt and **N.M.D. Niezink**. Getting ahead through luck of the draw: Random assignments to complex projects and early career trajectories [second R&R, Academy of Management Journal]

REFEREED PUBLICATIONS

- 2024 Helgeson, V.S., F.S. Horner, H.T. Reis, **N.M.D. Niezink**, and I. Libman (2024). Peer interactions and health among youth with diabetes: An ecological momentary assessment. *Health Psychology*.
- 2023 Helgeson, V.S., F. Horner, H. Reis, **N.M.D. Niezink** and I. Libman (2023). Support and conflict among youth with type 1 diabetes: A focus on friends. *Journal of Pediatric Psychology*, 48(11), 940–951.
- 2023 **Niezink, N.M.D.** (2023). Discussion of ‘A tale of two datasets: Representativeness and generalisability of inference for samples of networks’ by P.N. Krivitsky, P. Coletti, and N. Hens. *Journal of the American Statistical Association*, 118(544), 2232–2234.
- 2023 Li, S., D. Krackhardt and **N.M.D. Niezink** (2023). Do your friends stress you out? A field study of the spread of stress through a community network. *Journal of Personality and Social Psychology*, 125(1), 100–116.
- 2022 Zajdel, M., J.B. Naqvi, **N.M.D. Niezink**, and V.S. Helgeson (2022). Links of daily shared appraisal and collaboration to support, mood, and self-care in type 2 diabetes. *Journal of Social and Personal Relationships*, 40(6), 1961–1986.
- 2022 Wu, W., **N.M.D. Niezink**, and B.W. Junker (2022). Diagnostics for pairwise comparison models. *Journal of the Royal Statistical Society Series A: Statistics in Society*, 185, S461–S484.
- 2022 **Niezink, N.M.D.** and P. Campana (2022). When things turn sour: A network event study of organized crime violence. *Journal of Quantitative Criminology*, 39, 655–678.
- 2021 Yang, X., **N.M.D. Niezink** and R. Nugent. (2021). Learning social networks from text data using covariate information. *Statistical Methods & Applications*, 30(5), 1399–1423.
- 2021 Pan, J., Y. Zhong, S. Young, and **N.M.D. Niezink** (2021). Collaboration on evidence synthesis in Africa: a network study of growing research capacity. *Health Research Policy and Systems*, 19, 126.
- 2019 **Niezink, N.M.D.**, M.A.J. van Duijn and T.A.B. Snijders (2019). No longer discrete: Modeling the dynamics of social networks and continuous actor attributes. *Sociological Methodology*, 49(1).
- 2019 **Niezink, N.M.D.** (2019). Offline consequences of echo chambers. In *Fourth International Workshop on Social Sensing (SocialSense’19)*, April 15, 2019, Montreal, QC, Canada. ACM, New York, NY, USA. [conference paper]
- 2018 **Niezink, N.M.D.** and T.A.B. Snijders (2018). Continuous-time modeling of panel data with network structure. In K. van Montford, J.H.L. Oud & M. Voelkle (Eds.), *Continuous time modeling in the behavioural and related sciences*. Cham, Switzerland: Springer.
- 2018 Tropf, F.C., **N.M.D. Niezink**, and T. Kretschmer (2018). Causality and pleiotropy in the association between victimization in adolescence and depression in adulthood in the UK. *Twin Research and Human Genetics*, 21(1), 33–41.
- 2017 **Niezink, N.M.D.** and T.A.B. Snijders (2017). Co-evolution of social networks and continuous actor attributes. *The Annals of Applied Statistics*, 11(4), 1948–1973.
- 2016 **Niezink, N.M.D.** (2016). Netwerkdynamiek ontrafelen. [To unravel network dynamics]. *Sociologie Magazine*, 24(4), 26–28.

Grants

- 2022 - 2024 Richard King Mellon Foundation grant for the project ‘Evaluating gamified pediatric diabetes education’, PI: Rema Padman, CMU (Co-investigator)
- 2022 - 2023 CMU Provost’s Inclusive Teaching Fellowship for the project ‘Faces of statistics’
- 2021 - 2024 NIH/National Library of Medicine grant for the project ‘Leveraging YouTube video analytics for patient education: A digital therapy tool for clinicians to retrieve and recommend understandable videos on chronic disease management’, PI: Rema Padman, CMU (Co-investigator, 1R01LM013443-01A1)
- 2020 - 2025 NSF Regular Research Grant in the Methodology, Measurement, and Statistics (MMS) Program for the project ‘Statistical Models for Three-Way Social Network Dynamics’ (PI, SES-2020276)
- 2020 - 2021 Russell Sage Foundation Small Grant in Computational Social Science for the project ‘Learning

- from wiki surveys for large-scale collaborative ideation' (PI, G-2003-22461)
- Jul 2019 NIH grant 'Teens with type 1 diabetes: A focus on friendship', PI: Vicky Helgeson, CMU (Co-PI)
- Jan 2019 CMU Berkman Faculty Development Fund grant for the project 'Modeling the Dynamics of Criminal Networks based on Cooffending Events' (PI)
- Apr 2013 NWO (Dutch NSF) Research Talent grant for the project 'Co-Evolution of Networks and Real-Valued Actor Attributes' (NWO 406-12-165, full 3 year research funding)
- Jul 2012 Full stipend for participation in the project-based summer school in Computational Biology and Bioinformatics, University of Oxford

Awards

- Jun 2019 Nominated by the Faculty of Behavioral and Social Sciences for the Wierenga-Rengerink PhD Prize for the best dissertation of the University of Groningen
- Jun 2012 Teaching Assistant of the Year for the studies Mathematics and Applied Mathematics, elected by the students
- Dec 2011 Excellent Students scholarship, awarded by the Groningen University Fund (for a research internship at Nuffield College, University of Oxford)

Research visits

- Mar 2023 Visiting Scholar at Institute of Criminology, University of Cambridge, hosted by Paolo Campana
- Jul 2019 Visiting Scholar at Institute of Criminology, University of Cambridge, hosted by Paolo Campana
- Jan - Mar 2015 Research visit to Mark Handcock, Department of Statistics, UCLA
Topic: Particle filtered MCMC-MLE for exponential random graph models
- Jan - Apr 2012 Junior Visiting Scholar at Nuffield College, University of Oxford
- Apr - Jun 2011 Research internship at Dutch National Aerospace Laboratory, Amsterdam

Talks

INVITED TALKS

- Sep 2024 Talk at Causal Inference and Prediction for Network Data, Banff International Research Station
- Mar 2024 Modeling (criminal) network dynamics – Institute of Criminology, University of Cambridge
- Feb 2023 How do social networks affect us? – CMU Women in Mathematics and Computing symposium
- Dec 2022 Networks in 3D: Inference for three-way social networks. – IMS International Conference on Statistics and Data Science, Florence
- Nov 2022 Networks in 3D: Inference for three-way social networks. – Stanford Research on Algorithms and Incentives in Networks seminar, Stanford University
- May 2022 Modeling the dynamics of network perceptions. – AMS Spring Western Virtual Sectional Meeting, Special Session on Interactions Between Probability and Statistics, virtual
- Apr 2022 Modeling actor dynamics on social networks. – Novartis, virtual
- Oct 2021 Social network analysis. – CMU American Statistical Association Meeting
- Jun 2021 Modeling network dynamics and dynamics on networks. – Summer Institute for Computational Social Science, Beijing
- May 2021 Statistical analysis of social networks. – Community for Advanced Methodological Learning, Department of Psychology, University of Pittsburgh
- Apr 2021 Bringing perspective into dynamic network analysis. – Mitchell Centre for Social Network Analysis, University of Manchester
- Mar 2021 Data science for digital democracy. – Women in Data Science Pittsburgh @CMU, virtual conference
- Feb 2021 Modeling social influence on dynamic and static networks. – Statistics & Probability seminar, School of Mathematical Sciences, University of Nottingham
- Jan 2021

- Bringing perspective into dynamic network analysis. – 2021 Workshop on Statistical Network Analysis and Beyond
- Jan 2020 Bringing perspective into dynamic network analysis. – Science of Networks in Communities (SONIC) research group, Northwestern University
- Oct 2018 Opponent at the defense of Gennady Zavyalov, on his dissertation ‘Analyzing the Dynamic Interdependence of Network Structure and Performance in Board Interlocks’, University of Stavanger Business School
- Mar 2017 No longer discrete: Modeling the dynamics of social networks and continuous actor attributes. – Department of Statistics, Penn State University
- Mar 2017 No longer discrete: Modeling the dynamics of social networks and continuous actor attributes. – Department of Statistics, Carnegie Mellon University
- Aug 2016 Modeling the dynamics of social networks and continuous actor attributes. – Workshop Network Science and its Applications, Isaac Newton Institute for Mathematical Sciences, Cambridge
- Mar 2015 Co-evolution of social networks and continuous actor attributes. – Social network analysis group seminar, Department of Statistics, UCLA
- Feb 2015 Co-evolution of social networks and continuous actor attributes. – CANA Social networks meeting, Department of Preventive Medicine, University of Southern California
- Mar 2013 ODE, RDE and SDE models of cell cycle dynamics and clustering. – Statistics reading group, Department of Mathematics, University of Groningen
- Feb 2013 Co-evolution of social networks and continuous actor attributes, and the demystification of the many ministepts. – Statistical network modeling seminar, Nuffield College, University of Oxford

CONTRIBUTED TALKS

- Jun 2024 RSiena for continuous behavior: Updates and next steps. – 44th Sunbelt Social Networks Conference, Edinburgh
- Jul 2022 Social influence on dynamic networks: Modeling in continuous time. – XLII Sunbelt Social Networks Conference, Cairns
- Sep 2021 Continuous-time modeling of social influence on static networks. – 5th European Conference on Social Networks, virtual
- Jul 2021 Continuous-time modeling of social influence on static networks. – Networks 2021: A Joint Sunbelt and NetSci Conference, virtual
- Dec 2019 Modeling the dynamics of social network perceptions. – CMStatistics 2019, London
- Sep 2019 When thing turns sour: A network event study of violence among organized crime members. – 4th European Conference on Social Networks, Zurich
- Jun 2019 Network analysis: A talk about assumptions. – Summer Institute in Computational Social Science, Princeton University
- Apr 2019 Offline consequences of echo chambers. – 4th International Workshop on Social Sensing (SocialSense’19), Montreal
- Dec 2018 Stochastic differential equation modeling of social influence in networks. – CMStatistics 2018, Pisa
- Nov 2018 When things turn sour: Exploring violence by organized crime members using a longitudinal event-based perspective. – North American Social Networks Conference, Washington
- Jun 2018 Continuous versus discretized behavior in stochastic actor-oriented models. – XXXVIII Sunbelt Social Networks Conference, Utrecht
- Jun 2018 Modeling the dynamics of social networks and continuous actor attributes. – NetSci 2018, Paris
- Jul 2016 Modeling the dynamics of social networks and continuous actor attributes. – World Congress in Probability and Statistics, Toronto
- Jun 2016 A matter of accuracy: Standard errors in stochastic actor-oriented models. – European Conference on Social Networks II, Paris
- Jul 2015 Always in interaction: Continuous-time modeling of panel data with network structure. – European Meeting of Statisticians, Amsterdam
- Jun 2015 What is it like to be discrete? Continuous behavior variables in stochastic actor-oriented models. – XXXV Sunbelt Social Networks Conference, Brighton

- Jul 2014 Always in interaction: Continuous time modeling of panel data taking into account social embeddedness. – VI European Congress of Methodology, Utrecht
- Jul 2014 Continuously or discretely: How to analyze continuous dependent actor attributes in stochastic actor-oriented models. – European Conference on Social Networks I, Barcelona
- Jun 2013 Co-evolution of networks and continuous actor attributes: Modeling opportunity and mechanisms for change. – ARS'13 International Workshop 'Networks in space and time', Rome
- Mar 2013 Co-evolution of social networks and continuous actor attributes. – XXXIII Sunbelt Social Networks Conference, Hamburg
- Jan 2013 Co-evolution of social networks and continuous actor attributes. – Young European Statisticians Workshop, Eindhoven

Supervision

- ongoing Princess Allotey. Joint PhD in Statistics and Public Policy
– *Health utilization among individuals experiencing homelessness* (Advanced Data Analysis project, co-advised with Rema Padman)
- ongoing Peem Lerdputtipongporn. PhD in Statistics and Data Science
– *Causal inference in dynamic social network analysis* (co-advised with David Choi)
– *Modeling the length of hospital stay of sepsis patients* (Advanced Data Analysis project, co-advised with Larry Wasserman and George Chen)
- ongoing Anni Hong. PhD in Statistics and Data Science
– *Modeling multiplex networks*
– *Three-way network analysis of gossip* (Advanced Data Analysis project)
- 2024 Shihan Li. PhD in Public Policy and Management, co-advised with David Krackhardt
– *The effects of networks in organizations on well-being and career success*
- 2023 Quang Nguyen. PhD in Statistics and Data Science
– *Network analysis of organized crime in space and time* (Advanced Data Analysis project)
- 2023 Joshua Choi. BSc in Statistics and Machine Learning, Dietrich Senior Honors thesis
– *The effect of relative academic standing in students' social networks on academic growth*
- 2022 Sana Lakdawala. MSc in Machine Learning (before: Dietrich Senior Honors thesis, BSc)
– *Analyzing multilateral sanctions using three-way network analysis*
- 2021 Weichen Wu. PhD in Statistics and Data Science, co-advised with Brian Junker
– *Statistical methodology for wiki survey data* (Advanced Data Analysis project)
- 2021 Edric Eun. Summer Undergraduate Research Apprenticeship (BSc)
– *Modeling social influence on static networks using stochastic differential equations*
- 2021 Xiaoyi Yang. PhD in Statistics and Data Science, co-advised with Rebecca Nugent
– *Learning social networks from text data*
- 2020 Yuting Shi. MSc in Electrical Engineering
– *Relational event models for food sharing in a community in Nicaragua*
- 2020 Jiayi Pan. BSc in Statistics and Data Science, and Yongqi Zhong. PhD in Epidemiology, Pitt
– *A network view on capacity building in evidence synthesis in sub-Saharan Africa*
- 2019 Matt Crespi. PhD in Public Policy and Management, co-advised with David Krackhardt
– *Examining physician referral networks and hospital performance*
- 2015 Lianne Jansen. Master's thesis Mathematics, co-advised with Ernst Wit
– *Co-evolution of friendship and academic performance in an international setting*
- 2014 Ferdi Doddema. Master's thesis Mathematics Education, co-advised with Ernst Wit
– *Introduction to the stochastic actor-oriented model: A description and application of the model*

COMMITTEE MEMBER

- 2023 Wanshan Li. PhD in Statistics and Data Science, Carnegie Mellon University
- 2023 Max Rubinstein. PhD in Statistics & Data Science and Public Policy, Carnegie Mellon University
- 2021 Shengming Luo, PhD in Statistics and Data Science, Carnegie Mellon University
- 2020 Kayla Frisoli. PhD in Statistics and Data Science, Carnegie Mellon University
- 2018 Momin Malik. Data Analysis Project, Machine Learning, Carnegie Mellon University
- 2018 Gennady Zavyalov. PhD at Faculty of Social Science, University of Stavanger Business School

Service

- 2023 - present Associate Editor of *Statistica Neerlandica*
- 2023 - present Board member of the International Network for Social Network Analysis (INSNA)
- 2024 Co-organizer of the session ‘Modeling Network Dynamics’ at the 44th Sunbelt Social Networks Conference, Edinburgh
- 2022 Co-organizer of the session ‘Modeling Network Dynamics’ at the 6th European Conference on Social Networks, Greenwich
- 2022 Co-organizer of the sessions ‘Modeling Network Dynamics’ and ‘Modeling Social Influence’ at XLII Sunbelt Social Networks Conference, Cairns
- 2021 Co-organizer of the sessions ‘Modeling Network Dynamics’ and ‘Modeling Social Influence’ at Networks 2021: A Joint Sunbelt and NetSci Conference, Washington DC
- 2021 Member of a National Science Foundation review panel for the DMS Statistics Program
- 2020 Co-organizer of the sessions ‘Modeling Network Dynamics’ and ‘Criminal Networks’ at the 2020 Sunbelt Virtual Conference
- 2015 - present Occasional reviewer for: *BMJ Open*, *Computational Statistics and Data Analysis*, *Journal of the American Statistical Association*, *Journal of the Royal Statistical Society - Series C, Methodology*, *Multivariate Behavioral Research*, *Social Networks*, *Sociological Methods & Research*, *Sociological Methodology*, *Network Science*, *PlosOne*, *Statistical Methods & Applications*, *Statistica Neerlandica*

CARNEGIE MELLON UNIVERSITY

- 2023 - present Core member of the Institute for Complex Social Dynamics, housed in CMU’s Dietrich College of Humanities and Social Sciences
- 2021 - present CMU Open Science & Data Collaborations advisory board
- 2020 - present Organizer of the ‘Networkshop’, weekly research meetings on network analysis
- 2018 - present Department of Statistics & Data Science: Governance evaluation committee (2018-2019), Faculty search committee (2018-2019), Strategy and policy committee (2019-present), ASML Scholarship selection committee (2021), PhD admissions committee (2021-2023), DEI working group (2022-present)
- 2020 - 2022 Member of the StatDS Wellness Network (Mental Health First Aid certificate, Dec 2020)
- 2021 Heinz College of Information Systems and Public Policy: Faculty search committee
- 2021 Dietrich College: Space committee

UNIVERSITY OF GRONINGEN

- 2015 - 2017 Member of the University Committee for Academic Practice (UCW), an independent advisory committee of the Board of the University of Groningen
- 2007 - 2011 Member of the Curriculum Committee Mathematics
- 2007 - 2008 Member of the praesidium of the Student Committee Mathematics

Teaching

CARNEGIE MELLON UNIVERSITY

- 2023 - present PNC Rising Data Scientists Program: Module on Graphs and Networks (Executive Education)
2018 - present 36-226 Introduction to Statistical Inference (Spring 2019–2023, BSc)
36-726 Statistical Practice (Spring 2023–2024, MSc)
36-717 Statistical Network Models I (Fall 2021; newly developed, PhD)
36-718 Statistical Network Models II (Fall 2021; newly developed, PhD)
36-311 Statistical Analysis of Networks (Fall 2018–2020; newly developed, BSc)
36-490 Undergraduate Research (Spring 2018, BSc)

UNIVERSITY OF GRONINGEN

- Apr - Jul 2017 Department of Sociology, lecturer for SOBA221 Social Networks
2013 - 2017 Department of Sociology, teaching assistant for Statistics 4 (2013), Introduction into R (2014), Social Networks (2015, 2016), Applied Statistics (2016, 2017)
2009 - 2011 Department of Mathematics, mentor of first-year students
2006 - 2011 Department of Mathematics, teaching assistant for Calculus I (2009), Crash course Calculus I (2009), Integrating Projects (2006, 2007), Linear Algebra (2007, 2008, 2009, 2010), Mathematics A (2006), Mathematics B (2006, 2007), Orientation Mathematics (2010)

- Workshop ‘Analyzing the dynamics of networks and continuous behavior with RSiena’ at the
Jun 2024 44th Sunbelt Social Networks Conference, Edinburgh
Jul 2022 XLII Sunbelt Social Networks Conference, Cairns
Sep 2021 5th European Conference on Social Networks, virtual
Jun 2021 Networks 2021: A Joint Sunbelt and NetSci Conference, virtual
Jan 2021 RSiena winter school, University of Groningen
Dec 2019 Duisterbelt workshop, University of Groningen
Sep 2019 4th European Conference on Social Networks, Zurich

- Workshop ‘Multiplex social network analysis with multip2’ at the
Jun 2024 44th Sunbelt Social Networks Conference, Edinburgh; with Anni Hong (PhD student)
Feb 2016 Advanced RSiena Users Meeting, ETH Zürich, co-taught with Tom Snijders and Christian Steglich
Jan - Aug 2009 Willem Lodewijk Gymnasium, mathematics teacher for two first form classes
2007 - 2015 UOCGMarket BV, teacher and material developer highschool final exam training Mathematics B
2004 - 2010 Tutor for highschool students in French, Latin and Mathematics