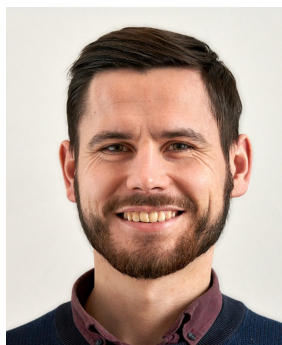


Curriculum Vitae - Rasmus Kristoffer Pedersen, Ph.D.



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[ORCID: 0000-0001-5946-8220](#)

Expert in mathematical modelling, in particular of biological systems, and analysis of epidemiological data, with a strong background in problem-oriented project-based work as well as general mathematics and physics.

I have a personal interest in communication of science and particularly mathematics, which I have worked with in my time as PostDoc (e.g. science communication articles to the general public) my Ph.D. (e.g. communication of mathematical results to medical professionals), my master thesis (a mathematics-didactical study) and privately (e.g. talks to the broader public on the topic of interactive visualizations)

Selected publications in peer-reviewed journals

- Simonsen, Pedersen, Andreasen, Krause & Petersen (2025) “A Disease Suppression Strategy in Action: The Impact of Non-Pharmaceutical interventions in the COVID-19 pandemic in Denmark.” *International Journal of Infectious Diseases*, 160, 108039
- Pedersen, Ingholt, van Wijhe, Andreasen & Simonsen (2025) “Identifying Signature Features of Epidemic Diseases from 19th Century All-cause Mortality Data.” *American Journal of Epidemiology*, 194
- Friis, Martin-Bertelsen, Pedersen, Nielsen, Krause, Andreasen & Vestergaard (2023) “COVID-19 mortality attenuated during widespread Omicron transmission, Denmark, 2020 to 2022.” *Eurosurveillance*, 28, 3
- Pedersen, Andersen, Stiehl, Ottesen (2023) “Understanding Hematopoietic Stem Cell Dynamics—Insights from Mathematical Modelling.” *Current Stem Cell Reports*, 9
- Pedersen, Andersen, Stiehl, Ottesen (2021) “Mathematical modelling of the hematopoietic stem cell-niche system: Clonal dominance based on stem cell fitness.” *Journal of Theoretical Biology*, 518

Job experience

- Research Fellow - Clinical Epidemiology - University of Münster Since December 2024
- PostDoc - PandemiX Center - Roskilde University February 2022 → November 2024
- Scientific Assistant - Roskilde University September 2021 → January 2022
- PostDoc - PandemiX Center - Roskilde University February 2021 → August 2021
- Scientific Assistant - Roskilde University September 2020 → January 2021
- Course teacher - Courses “Optimisation and Computational Methods”, “Data Analysis and Statistics”, “Modelling populations and epidemics” and “Mathematical modelling and dynamical systems”
Roskilde University Between 2018 and 2021
- Supervisor of a total of four bachelor-student-projects - Roskilde University Between 2017 and 2020
- Teaching Assistant - Courses “BK2”, “Calculus” & “BK1” - Roskilde University Between 2015 and 2017
- High School teacher - Roskilde Gymnasium Fall 2014 and Spring 2015

Education

- Ph.D. in Mathematics - Roskilde University
“Mathematical Modelling of Myeloproliferative Neoplasms and Hematopoietic Stem Cells”
September 2017 - August 2020 *Thesis successfully defended November 20th, 2020*
- Cand. Scient. in Physics and Mathematics - Roskilde University
August 2015 - August 2017
- Bach. Scient. in Mathematics and Physics - Roskilde University
August 2011 - June 2014

Technical competencies

Python	■ ■ ■ ■ ■
MATLAB	■ ■ ■ ■ ■
L ^A T _E X	■ ■ ■ ■ ■
Web-development (HTML, Javascript, CSS)	■ ■ ■ □ □

Language competencies

Danish	C2 (Mother tongue)
English	C2
German	B2

Conference contributions and academic presentations

- DGEpi 20. Jahrestagung, 2025 - Poster
Herpes Zoster vaccination in the context of demographic changes - A Modelling study
- Epidemics 9, 2023 - Contributed talk
Identifying Signature Features of Epidemics Diseases in 19th century All-cause Mortality Data
- Data-driven mechanistic mathematical modelling for life-science applications, 2023 - Contributed talk
Mathematical modelling for determining COVID-19 incidence from testing data
- ECMTB, 2022 - Contributed talk
Model-based approach for determining COVID-19 incidence for different testing intensities
- The second Nordic Biomathematics days, 2022 - Contributed talk
Mathematical Modelling of Myeloproliferative Neoplasms and Hematopoietic Stem Cells
- Statistics and Biomathematics seminar (Chalmers, Gothenburg), 2020 - Invited talk
Modelling hematopoietic stem cells and their interaction with the bone marrow micro-environment
- The first Nordic Biomathematics days, 2019 - Contributed Talk
Modelling hematopoietic stem cells and their interaction with the bone marrow micro-environment
- SMB, 2019 - Poster
- SIAM Conference on Applications of Dynamical Systems, 2019 - Poster
- ECMTB, 2018 - Poster

Selected examples of science communication to the public

- “How to visualize your science”
Invited Talk at INM PhD-day, Roskilde University
October 2023
- “Communicating Mathematics with Interactive Visualizations”
Talk at Studienfonds Community Conference, Bielefeld, Germany
August 2022
- “Communicating Science and Mathematics with Interactive Visualizations”
Talk at DataViz CPH meetup
September 2021
- “[Hvordan skal vi beregne overdødelighed?](#)”
(Eng: *How do we calculate excess mortality?*)
Article for Videnskab.dk (in danish)
November 2022
- “[Vender COVID-19 for alvor tilbage?](#)”
(Eng: *Is COVID-19 gone for good?*)
Article for Videnskab.dk (in danish)
June 2022
- “[Forskere: Omikron kan være den dominerende variant allerede onsdag](#)”
(Eng: *Researchers: Omicron could already be the dominating variant from Wednesday.*)
Article for Videnskab.dk (in danish)
December 2021
- “[Tilbage til begyndelsen: Lav dine egne corona-kurver](#)”
(Eng: *Back to the start: Make your own COVID-19-curves*)
Article for Videnskab.dk (in danish)
September 2021
- “[Forstå usikkerhed i matematiske modeller med disse interaktive grafikker](#)”
(Eng: *Understand uncertainty in mathematical models with these interactive figures*)
Article for Videnskab.dk (in danish)
May 2021
- “Interaktive visualisering til videnskabelig formidling”
(Eng: *Interactive visualizations for scientific dissemination*), Webinar, Danish Society of Engineers, IDA
May 2020
- “Communicating science with p5.js - How interactive simulations and creative coding can make the complex relatable”
Talk at “Processing Community Day 2020”
January 2020
- “The benefits of building and working with interactive simulations
Interactive simulations for better model intuition”
Blog post, “Mathematical Oncology” blog
October 2019