

Curriculum vitae with track record (for researchers)

Role in the project Project manager Project participant

Personal information

First name, Surname:	Steinar Evje		
Date of birth:	070568	Sex:	male
Nationality:	Norway		
Researcher unique identifier(s) (ORCID, ResearcherID, etc.):			
URL for personal website:	https://www.uis.no/nb/profile/steinar-evje		

Education

Year	Faculty/department - University/institution - Country
1998 (dissertation defended)	Ph.D. Department of mathematics, University in Bergen, Norway
1992	Cand Scient in Applied Mathematics Department of mathematics, University in Bergen, Norway

Positions - current and previous

(Academic sector/research institutes/industrial sector/public sector/other)

Year	Job title – Employer - Country
1998- 2009	IRIS (researcher and senior researcher)
2009 - current	Professor in applied and computational mathematics, University of Stavanger

Project management experience

(Academic sector/research institutes/industrial sector/public sector/other. Please list the most relevant.)

Year	Project owner - Project - Role - Funder
2005-2007	Postdoc project (IRIS) - Tore Flåtten

2012-2014	Postdoc project (UiS) – Huanyao Wen
2019- 2021	Postdoc project (UiS) – Yangyang Qiao

Supervision of students

(Total number of students)

Master's students	Ph.D. students	University/institution - Country
Around 15	6	University of Stavanger - Norway

Other relevant professional experiences

(E.g. institutional responsibilities, organisation of scientific meetings, membership in academic societies, review boards, advisory boards, committees, major research or innovation collaborations, other commissions of trust in public or private sector)

Year	Description - Role
2004 -	Opponent in several PhD defences (Norway and Sweden)
2009 -	Reviewer for 15-20 different journals in Applied mathematics/Engineering

Track record

- The total *number* of publications during the career:
 Around 100 journal papers and 17 conference papers
<https://www.researchgate.net/profile/Steinar-Evje/research>
<https://www.uis.no/nb/profile/steinar-evje>

Recent Publications

Li, Qing; Geng, Jiahui; Evje, Steinar (2023). Identification of the flux function of nonlinear conservation laws with variable parameters. *Physica D: Non-linear phenomena*. Volum 451. DOI: [10.1016/j.physd.2023.133773](https://doi.org/10.1016/j.physd.2023.133773)

Li, Qing; Evje, Steinar (2023). Learning the nonlinear flux function of a hidden scalar conservation law from data. *Networks and Heterogeneous Media*. Volum 18. Hefte 1. s.48-79. DOI: [10.3934/nhm.2023003](https://doi.org/10.3934/nhm.2023003)

Li, Qing; Evje, Steinar; Geng, Jiahui (2023). Learning Parameterized ODEs From Data. *IEEE Access*. Volum 11. s.54897-54909. DOI: [10.1109/ACCESS.2023.3282435](https://doi.org/10.1109/ACCESS.2023.3282435)

Nævdal, Geir; Evje, Steinar (2023). Can cancer cells inform us about the tumor microenvironment? *Journal of Computational Physics*. Volum 492. s.1-28. DOI: [10.1016/j.jcp.2023.112449](https://doi.org/10.1016/j.jcp.2023.112449)

Evje Steinar; Skadsem, Hans Joakim; Nævdal, Geir (2023). Identification of nonlinear conservation laws for multiphase flow based on Bayesian inversion. *Nonlinear dynamics*. Volum 111. Hefte 19. s.18163-18190. DOI: [10.1007/s11071-023-08817-9](https://doi.org/10.1007/s11071-023-08817-9)

Qiao, Yangyang; Skadsem, Hans Joakim; Evje, Steinar (2023). An Integrated Modeling Approach for Vertical Gas Migration Along Leaking Wells Using a Compressible Two-Fluid Flow Model. *Transport in Porous Media*. Volum 150. Hefte 1. s.177-213. DOI: [10.1007/s11242-023-02005-4](https://doi.org/10.1007/s11242-023-02005-4)

G Nævdal, E Rofstad, K Søreide, S Evje (2022), Fluid-sensitive migration mechanisms predict association between metastasis and high interstitial fluid pressure in pancreatic cancer, *Journal of Biomechanics* 145, 111362.

JO Waldeland, Gaustad, E Rofstad, S Evje (2021). In silico investigations of intratumoral heterogeneous interstitial fluid pressure. *Journal of Theoretical Biology* ISSN 0022-5193. Volum 526. s.1-21. DOI: [10.1016/j.jtbi.2021.110787](https://doi.org/10.1016/j.jtbi.2021.110787)

YY Qiao, Q Li, S Evje (2021), On the numerical discretization of a tumor progression model driven by competing migration mechanisms, *Mathematics in Engineering* 4(6), pp 1-24.

S Evje, M Winkler (2020). Mathematical Analysis of Two Competing Cancer Cell Migration Mechanisms Driven by Interstitial Fluid Flow. *Journal of nonlinear science*. ISSN 0938-8974. Volum 30. s.1809-1847. DOI: [10.1007/s00332-020-09625-w](https://doi.org/10.1007/s00332-020-09625-w)

YY Qiao, S. Evje (2020), A general cell-fluid Navier-Stokes model with inclusion of chemotaxis. *Mathematical Models and Methods in Applied Sciences*. ISSN 0218-2025. Volum 30. Hefte 06. s.1167-1215. DOI: [10.1142/S0218202520400096](https://doi.org/10.1142/S0218202520400096)

YY Qiao S. Evje (2019), Viscous two-phase flow in porous media driven by source terms: Analysis and Numerics, *SIAM Journal on Mathematical Analysis* ISSN 0036-1410. Volum 51, s.5103-5140. DOI: [10.1137/19M1252491](https://doi.org/10.1137/19M1252491)

Urdal, Waldeland, Evje (2019), Collective tumor cell migration in the presence of fibroblasts. *Journal of Biomechanics* ISSN 0021-9290. Volum 100. DOI: [10.1016/j.jbiomech.2019.109568](https://doi.org/10.1016/j.jbiomech.2019.109568)

JO Waldeland, W Polacheck, S Evje (2019), Enhanced cancer cell invasion caused by fibroblasts when fluid flow is present. *Biomechanics and Modeling in Mechanobiology*. ISSN 1617-7959. Volum 18. Hefte 4. s.1047-1078. DOI: [10.1007/s10237-019-01128-2](https://doi.org/10.1007/s10237-019-01128-2)

S Evje and JO Waldeland (2019), How tumor cells can make use of interstitial fluid flow in a strategy for metastasis. *Cellular and Molecular Bioengineering* ISSN 1865-5025. Volum 12. Hefte 3. s.227-254. DOI: [10.1007/s12195-019-00569-0](https://doi.org/10.1007/s12195-019-00569-0)

JO Waldeland, S Evje, (2018). Competing tumor cell migration mechanisms caused by interstitial fluid flow. *Journal of Biomechanics*. ISSN 0021-9290. Volum 81. s.22-35. DOI: [10.1016/j.jbiomech.2018.09.011](https://doi.org/10.1016/j.jbiomech.2018.09.011)

- Invited talks (recent):
 - **An Integrative multiphase model for cancer cell migration**, (workshop organized by Prof M. Winkler in the international conference Equadiff), 2017, Bratislava

- **A multiphase model to understand how aggressive tumor cell behavior is linked to elevated fluid pressure**, Workshop on compressible multiphase flows: Strasbourg, France, May 2019.
- **Mathematical modeling of tumor progression driven by fluid-sensitive migration mechanisms**, presentation in the seminar "Material Modeling" at the Weierstrass Institute of Applied Analysis and Stochastics (WIAS) in Berlin, summer 2022