Curriculum vitae with track-record

Role in the project Project manager X Project partner

Personal information

First name, Surname:	Sönke Maus		
Date of birth:	11.06.1967	Sex:	Male
Nationality:	German		
Researcher unique identifier(s) (ORCID, ResearcherID, etc.):	https://orcid.org/0000-0002-5117-4962		
URL for personal website:	http://www.ntnu.no/ansatte/sonke.maus		

Education

Year	Faculty/department - University/institution - Country
2007	Ph.D., Geophysical Institute,UiB, Norway
1995	Diplom, Physical Oceanography, University of Hamburg, Germany

Positions - current and previous

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

Year	Job title – Employer - Country
2019-	Senior Researcher, NTNU, Norway
2015-2019	Postdoc Fellow, Department for Civil and Environmental Engineering, NTNU, Norway
2013-2014	Own enterprise, Sea Ice Consulting S. Maus, Norway
2011-2013	Researcher, Geophysical Institute, University of Bergen, Norway
2009-2010	Associate Professor, Geophysical Institute, University of Bergen, Norway
2007-2008	Researcher, Geophysical Institute, University of Bergen, Norway
2005-2006	Phd + Research Assistent, Geophysical Institute, University of Bergen, Norway
2001-2002	Phd + Freelancer, Geophysical Institute, University of Bergen, Norway
1999-2000	Phd + Reseach assistant, University of Svalbard, Norway

Career breaks

Year	Reason
2013-2016	In total 12 months parental leave
2013-2014	Own enterprise, Sea Ice Consulting S. Maus, Norway
2003-2004	Teacher Education, Waldorf-School Kiel, Germany; thereafter: return to research activity at Geophysical Institute, Bergen, Norway (Feb. 2005

Project management experience

*Academic projects, **ongoing in bold***

Year	Project owner - Project - Role - Funder
2020-2025	**NTNU -- Microstructure of sea spray ice: Prediction of icing on marine structures – Project manager – RCN Norway**
2021-2022	NTNU -- Digital Sea Ice Physics: Proof of Concept – Project manager – RCN Norway
2020-2022	NTNU -- Ice, polar ocean and climate - learning from north-polar expeditions – Project manager – RCN Norway
2018-2019	NTNU – Network for X-ray computed micro-tomography of snow and porous Ice media– Project manager – RCN Nano2021

2015-2019	NORUT – Microscale interaction of oil with sea ice for detection and environmental risk management in sustainable operations– WP leader – RCN Petromaks2
2014	SICON Norway -- Oil spills in ice-covered waters: Risk and response evaluation based on X-ray micro-tomography of sea ice -- Project manager – RCN Petromaks2
2012-2013	UiB -- Microstructure and phase transitions of sea ice-- Project manager – RCN SYNKNOEYT

Supervision of students

(7 in total)

Master's students	Ph.D. students	University/institution - Country
	3	NTNU - Norway
1	2	UiB - Norway
1		UNIS - 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
2019-	International Glaciological Society
2020-	European Geophysical Society
2015-18	International Society for Porous Media (Interpore)
2017	Organisor: Workshop on X-Ray micro-tomography of snow and porous ice media. June 22/23,2017, NTNU, Trondheim, Norway
2017-	Organisor: X-Ray micro-tomography of snow and porous ice media. Mini-symposium MS-3.5, 9th International Conference on Porous Media, May 8-12, 2017, Rotterdam, The Netherlands
2015-19	Ice laboratory manager, Dep. for Civil and Environmental Engineering, NTNU
2010 -	Referee activity (NSF National Science Foundation, OSRI Oil Spill Recovery Institute)
2010 -	Reviewer for several journals (J. Geophys. Res., Geophys. Res. Letters, Cold regions Science and Technology, The Cryosphere, Int. J. Heat and Mass Transfer)

TRACK RECORD

Total number of publications (Google Scholar): 40 (h-indeks 12, i10-indeks 13, 507 citations).
Conference presentations and publications on Cristin (total 71):
https://wo.cristin.no/as/WebObjects/cristin.woa/wa/fres?sort=ar&pnr=48459&la=no&action=sok
For preprints of recently submitted work: http://www.ntnu.no/ansatte/sonke.maus
10 Selected publications:

1. **Maus, S**., S. Bahafid, M. Hendriks, S. Jacobsen, M.R. Geiker (2022) X-ray micro-tomography of saline ice forming in concrete frost salt scaling experiments, in review at *Cold Regions Science. and Technology,* preprint at DOI: 10.13140/RG.2.2.25814.32326
2. M. Nicolaus and 104 Coauthors including **S. Maus** (2022) Overview of the MOSAiC expedition: Snow and sea ice, *Elementa Science of the Anthropocene*, 10, 1, 000046
3. **Maus, S**.; Schneebeli, M; Wiegmann, A..(2021) A micro-tomographic study of the permeability and percolation threshold of young sea ice. *The Cryosphere*. 15, 4047-4072, 10.5194/tc-15-4047-2021
4. Salomon, M. L. and **S. Maus** and C. Petrich (2021) Microstructure evolution of young sea ice from a Svalbard fjord using micro-CT analysis. *Journal of Glaciology*, 1-20, 2021, doi:10.1017/jog.2021.119.
5. **Maus, S**. (2020). The plate spacing of sea ice. *Annals of Glaciology*, 82, 10.1017/aog.2020.65, 1-18.
6. Salganik, E.; Høyland, K. V.; **Maus, S**. (2020); Consolidation of fresh ice ridges for different scales. *Cold Regions*

Science. and Technology., 2020; 171, 102959.

7. Salomon, M.L; Arntsen, M.; Dang, N. P.; **Maus, S**.; O'Sadnick, M.; Petrich, C.; Schneebeli, M.; Wiese, M. (2017) Experimental and Micro-CT study on the Oil Distribution in laboratory grown Sea Ice. Proceedings on *Port and Ocean Engineering under Arctic Conditions 2017 (POAC),* Trondheim, Norway. 10pp.
8. **Maus, S**.; Leisinger, S.; Matzl, M.; Schneebeli, M.; Wiegmann, A. (2015). Oil saturation of the sea ice pore space. Proceedings on *Port and Ocean Engineering under Arctic Conditions 2015 (POAC)*; Trondheim, Norway, June 2015, 12pp.
9. **Maus, S**.; De La Rosa, S. (2012). Salinity and solid fraction of frazil and grease ice. *Journal of Glaciology*; 58 (209) p. 594-612
10. **Maus, S**.; S. Müller, J. Büttner, S. Brütsch, T. Huthwelker, M. Schwikowski, F. Enzmann, A. Vähätolo (2011). Ion fractionation in young sea ice from Kongsfjorden, Svalbard. *Annals of Glaciology*, 52(57), 301-310.

Monographs

- Maus, S., 2007. *On Brine Entrapment in Sea Ice: Morphological Stability, Microstructure and Convection*. Logos, Berlin, 538 pp. (published phd-thesis)

Popular science and media

- https://norwegianscitechnews.com/2018/02/predicting-fate-oil-spills-frozen-world/
- https://www.forskningsradet.no/en/Newsarticle/Sea_ice_holds_deep_secrets/1253965107216

Invited Presentations

- Permeability and Percolation of Sea Ice from Digital Rock Physics. GeoDict User Meeting, Math2Market, Kaiserslautern, 04.10.2021
- Digital Sea Ice Physics - A novel approach for computing and parametrising sea ice properties for geophysical applications. BAS Polar Oceans Seminar. British Antarctic Survey, 21.04.2021
- Microstructure and solutal boundary layer at the sea ice - ocean interface. EGU2020-6039. Session OS1.13 – Under cover: ice-ocean interaction from the boundary layer to the Southern Ocean
- Challenges of XRT imaging of sea ice/saline water freezing. Workshop on X-ray Microtomography of porous ice media; Jun 22-23, 2017.
- Sea ice imaging at synchrotron facilities. Norwegian Synchrotron User Meeting, Research Council of Norway, Sola Strand, Norway, Jan 19–20, 2015
- Sea Ice Properties and Microstructure. Operations in sea ice-covered waters, Narvik, May 06–07, 2014
- Synchrotron-based X-ray tomographic microscopy of sea ice. Ice deformation - from the model material to ice in natural environments. MICRODICE, 07-09 Nov. 2011. Grenoble, France
- Sea ice chemistry issues in the focus of climate change, Arctic Frontiers, 24-29 Jan. 2010, Tromsø,