

Sebastian Mernild  
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Prorektor, PhD and DSc, Professor in Climate Change and Glaciology, IPCC AR5 and AR6 WG1 Lead Author, and Reserve Officer

## Akademisk karriere

Okt. 2020-	Prorektor, Southern Danish University (SDU), Odense, Denmark
Maj 2019	Full Professor, Geophysical Institute, University of Bergen, Norway
Dec 2016-Okt 2020	Director (CEO), Nansen Environmental and Remote Sensing Center (NERSC); also known as the 'Nansen Center', Bergen, Norway
Apr 2016	Full Professor, Faculty of Engineering and Science, Western Norway University of Applied Sciences, Sogndal, Norway
Sep 2015-Nov 2015	Visiting Scientist, CIRES, Colorado State University, USA
Jan 2013-Dec 2015	Research Leader/Division Leader, Climate Change and Glaciology Laboratory, Centro De Estudios Cientificos (CECs), Valdivia, Chile
Sep 2012-Nov 2012	Visiting Scientist, Center for Sea Level Change, New York University Abu Dhabi, UAE
Nov 2011-Feb 2012	Visiting Scientist, Center for Atmospheric Ocean Science, New York University, USA
Nov 2009-Jan 2010	Visiting Scientist, Cooperative Institute for Research in the Atmosphere, Colorado State University, USA
Sep 2009-Jan 2013	Senior Research Scientist (2010–2012) and Directors Post Doc. (2009–2010), Climate, Ocean, and Sea Ice Modeling Group (COSIM), Department of Computational Physics and Methods (CCS-2), Los Alamos National Laboratory (LANL), New Mexico, USA
Apr 2008-Jul 2008	Visiting Scientist, Institute for Low Temperature Sciences, Hokkaido University, Japan
Nov 2007-Feb 2008	Visiting Scientist, Cooperative Institute for Research in Environmental Sciences, University of Boulder, Colorado, USA
Nov 2006-Sep 2009	Directors Post Doc. (IPY Post Doc.), International Arctic Research Center and Water and Environment Research Center, University of Alaska Fairbanks, Alaska, USA
Okt 2004-Dec 2004	Visiting Scientist, Cooperative Institute for Research in the Atmosphere, Colorado State University, USA

## Akademiske uddannelser

Juni 2016	DSc, Faculty of Science, Københavns Universitet
Nov 2006	PhD, Institut for Geografi, Københavns Universitet
Okt 2001	MSc, Institut for Geografi, Københavns Universitet
Juni 1999	BSc, Institut for Geografi, Københavns Universitet

## Lederuddannelse

**Educated Officer, Captain** (Artillery Operation Officer: military leader at Battalion level, responsibility for up to 550 soldiers), Danish Army. From 1995–2010, contract holder for the Danish Reaction Brigade for global peace-making, peace-keeping, and humanitarian operations purposes, and served under NATO in Kosovo (2002) and Afghanistan (2006).

## Priser

### Rosenkjærprisen

Mernild, Sebastian (Modtager), 2018

### Silver Medal, Price Dissertation in Physical Geography

Mernild, Sebastian (Modtager), 2002

## Medlemskab i bestyrelser og kommissioner

### Bjerknes Centre for Climate Research (Ekstern organisation)

Sebastian Mernild (Medlem)  
1. dec. 2016 → 31. okt. 2020

### Nansen Environmental and Remote Sensing Center (Ekstern organisation)

Sebastian Mernild (Medlem)  
1. dec. 2016 → 31. okt. 2020

### The International Commission on Snow and Ice Hydrology (ICSIH), under International Association of Hydrological Sciences (IAHS) (Ekstern organisation)

Sebastian Mernild (Næstformand)  
1. jun. 2015 → 31. maj 2019

### Climate and Cryosphere (CLiC) (Ekstern organisation)

Sebastian Mernild (Medlem)  
1. jan. 2014 → 31. dec. 2018

### The International Commission on Snow and Ice Hydrology (ICSIH), under International Association of Hydrological Sciences (IAHS) (Ekstern organisation)

Sebastian Mernild (Medlem)  
apr. 2010 → ...

## IPCC opgaver

AR6 WG1      Lead Author: Atlas Region; to be published 2021  
AR6 WG1      Contribution Author: Chapter 9; Ocean, cryosphere, and sea level change, 2021  
AR5 WG1      Contribution Author: Chapter 13; Sea Level Change, 2013

## National and international project (PI) and other grants

Overall, regarding national and international project funding SHM has won in the range of c. 6,900k US\$ [alone and together with other researchers] from government agencies in US, Chile, Denmark, Norway, and EU. Since 2006, SHM has been on soft money through external funded projects, and been a PI developing, managing, and organizing seven international major funded research projects with success including seven specific field projects. SHM has experience in planning, leading, coordinating, collaborating and also organizing field work activities/expeditions in Arctic and Andes. Since, 2016 SHM has been the Legal Project Administrator of more than 220+ national and international funded research projects at the Nansen Center, including some of the biggest EU H2020 funded projects, fx. INTARO

## Publikationer

Since 2003, the following have been published: **8 International Reports**, where two of them are related to **IPCC** as either Contribution Author (AR5) or Lead Author (AR6), **93 peer-review scientific papers** (six manuscripts are present in peer review), **60+ popular scientific papers**, and **80+ newspaper chronicles** about climate change and science

## Web of Science

Metric	All
Articles	81
Citations	2.447
H-index	30

## Google Scholar

Metric	All
Citations	3.898
H-index	37

i10-index	76
Metric	Since 20015
Citations	2.856
H-index	29
i10-index	61

## IPCC Reports

- 1 IPCC AR6 2021. Mernild, S. H. is Lead Author on the Regional Atlas, IPCC WGI Sixth Assessment Report
- 2 IPCC AR6 2021. Mernild, S. H. is Contribution Author on Chapter 9, Ocean, cryosphere, and sea level change IPCC WGI Sixth Assessment Report.
- 3 IPCC AR5 2013. Mernild, S. H. was a contributing author on Chapter 13, Sea Level Change, IPCC WGI Fifth Assessment Report, 1–107.

## International Reports (outside the IPCC context)

- 6 IMBIE-2 Report, Ice Sheet Mass Balance Inter-Comparison Exercise 2018. Mernild, S. H. was a Lead Participant, pp. 60.
- 5 AMAP 2017. Snow, Water, Ice and Permafrost in the Arctic (SWIPA Report) 2017. Arctic Monitoring and Assessment Programme (AMAP), Oslo, Norway. xiv + 269 pp. Mernild, S. H., was contributing author on Chapter 6: 'Changes to Arctic land ice', and lead author on Chapter 10: 'Cross-cutting scientific issues'.
- 4 CliC/AMAP/IASC, 2016. The Arctic Freshwater System in a Changing Climate. WCRP Climate and Cryosphere (CliC) Project, Arctic Monitoring and Assessment Programme (AMAP), International Arctic Science Committee (IASC). As part of the AFS (Arctic Freshwater Synthesis) Scientific team Mernild, S. H. was a contributing author.
- 3 Mernild, S. H., Cappelen, J., Jørgensen, B. V., Lipscomb, W. H., Box, J. E., and Hanna, E. 2012. Greenland Coastal Precipitation. In Richter-Menge, J., M.O. Jeffries, and J.E. Overland. The Arctic Report Card, Greenland. NOAA Report 2012.
- 2 Mernild, S. H., Knudsen, N. K., and Hanna, E. 2011. Mittivakkat Gletscher, SE Greenland. In Richter-Menge, J., Jeffries, M. O., and Overland, J. E. The Arctic Report Card, Greenland. NOAA Report 2011.
- 1 Dahl-Jensen, D., Mernild, S. H., and Steffen, K. 2009. Melting ICE – the Greenland Ice Sheet. In: Melting Snow and Ice: A call for action. A state-of-the-art report on the status of the future scenarios for the melting of ice in affected areas worldwide. The report was presented at the UN COP15.

## Ten Selected peer-reviewed publications

The IMBIE Team: Shepherd, A., Ivins, E., Rignot, E., Smith, B., van den Broeke, M., Velicogna, I., Whitehouse, P., Priggs, K., Joughin, I., Krinner, G., Nowicki, S., Payne, T., Scambos, T., Schlegel, N., Geruo, A., Agosta, C., Ahlstrøm, A., Babonis, G., Barletta, V. R., Bjørk, A. A., Blazquez, A., Bonin, J., Colgan, W., Csatho, B., Cullather, R., Engdahl, M., Felikson, D., Fettweis, X., Forsberg, R., Hogg, A., Gallee, H., Gardner, A., Gilbert, L., Gourmelen, N., Groh, A., Gunter, B., Hanna, E., Harig, C., Helm, V., Horvath, A., Horwath, M., Khan, S., Kjeldsen, K. K., Konrad, H., Langen, P. L., Lecavalier, B., Loomis, B., Luthcke, S., McMillan, M., Melini, D., Mernild, S. H., Mohajerani, Y., Moore, P., Mottram, R., Mouginit, J., Moyano, G., Muir, A., Nagler, T., Nield, G., Nilsson, J., Noël, B., Ootosaka, I., Pattle, M. E., Peltier, W. R., Pie, N., Rietbroek, R., Rott, H., Sørensen, L.S., Sasgen, I., Save, H., Scheuchl, B., Schrama, E., Schröder, L., Seo, K.-W., Simonsen, S. B., Slater, T., Spada, G., Sutterley, T., Talpe, M., Tarasov, L., van de Berg, W. J., van der Wal, W., van Wessem, M., Vishwakarma, B. D., Wiese, D., Wilton, D., Wagner, T., Wouters, B., and Wuite, J. 2020. Mass balance of the Greenland Ice Sheet, 1992–2018. *Nature*, doi.org/10.1038/s41586-019-1855-2.

Box, J. E., Colgan, W. T., Christensen, T. R., Schmidt, N. M., Lund, M., Parmentier, F.-J. W., Brown, R., Bhatt, U. S., Euskirchen, E. S., Romanovsky, V. E., Walsh, J. E., Overland, J. E., Wang, M., Corell, R. W., Meier, W. N., Wouters, B., Mernild, S. H., Mård, J., Pawlak, J., and Olsen, M. S. 2019. Key Indicators of Arctic Climate Change: 1971–2017. *Environmental Research Letter*, 14, 045010, doi.org/10.1088/1748-9326/aafc1b.

The IMBIE Team: Shepherd, A., Ivins, E., Rignot, E., Smith, B., van den Broeke, M., Velicogna, I., Whitehouse, P., Briggs, K., Joughin, I., Krinner, G., Nowicki, S., Payne, T., Scambos, T., Schlegel, N., Geruo, A., Agosta, C., Ahlstrøm, A., Babonis, G., Barletta, V., Blazquez, A., Bonin, J., Csatho, B., Cullather, R., Felikson, D., Fettweis, X., Forsberg, R., Gallee, H., Gardner, A., Gilbert, L., Groh, A., Gunter, B., Hanna, E., Harig, C., Helm, V., Horvath, A., Horwath, M., Khan, S., Kjeldsen, K., Konrad, H., Langen, P., Lecavalier, B., Loomis, B., Luthcke, S., McMillan, M., Melini, D., Mernild, S. H., Mohajerani, Y., Moore, P., Mouginit, J., Muir, A., Nagler, T., Nield, G., Nilsson, J., Noël, B., Ootosaka, I., Peltier, R., Pie, N., Rietbroek, R., Rott, H., Sandberg-Sørensen, L., Sasgen, I., Save, H., Schrama, E., Schroder, L., Weon Seo, K., Simonsen, S., Slater, T., Spada, G., Sutterley, T., Talpe, M., Tarasov, L., Jan van de Berg, W., van der Wal, W., van Wessem, M., Vishwakarma, B. D., Wiese, D., Wouters, B., Wu, X., and Zwally, J. 2018. Mass balance of the Antarctic ice sheet, 1992–2017. *Nature*, 558, 219–222, doi.org/10.1038/s41586-018-0179-y.

Mernild, S. H., Liston, G. E., Hiemstra, C. A., Malmros, J. K., Yde, J. C., and McPhee, J. 2017. The Andes Cordillera. Part I: Snow Distribution, Properties, and Trends (1979–2014). *International Journal of Climatology*, 37(4), 1680–1698, doi: 10.1002/joc.4804.

- Mernild, S. H., Hanna, E., McConnell, J. R., Sigl, M., Beckerman, A. P., Yde, J. C., Cappelen, J., and Steffen, K. 2015. Greenland precipitation trends in a long-term instrumental climate context (1890–2012): Evaluation of coastal and ice core records. *International Journal of Climatology*, 35, 303–320, doi:10.1002/joc.3986.
- Mernild, S. H., Liston, G. E., and Hiemstra, C. A. 2014. Northern Hemisphere glaciers and ice caps surface mass balance and contribution to sea-level rise. *Journal of Climate*, 27(15), 6051–6073, doi.org/10.1175/JCLI-D-13-00669.1.
- Mernild, S. H., Hanna, E., Yde, J. C., Cappelen, J., and Malmros, J. K. 2014. Coastal Greenland air temperature extremes and trends 1890–2010: Annual and monthly analysis. *International Journal of Climatology*, 34, 1472–1487, doi:10.1002/joc.3777.
- Mernild, S. H., W. H. Lipscomb, D. B. Bahr, V. Radić, and M. Zemp 2013. Global glacier retreat: A revised assessment of committed mass losses and sampling uncertainties. *The Cryosphere*, 7, 1565–1577, doi:10.5194/tc-7-1565-2013.
- Hanna, E., Mernild, S. H., Cappelen, J., and Steffen, K. 2012. Recent warming in Greenland in a long-term instrumental (1881–2012) climatic context. Part 1: Evaluation of surface air temperature records. *Environmental Research Letters*, 7, 045404, doi:10.1088/1748-9326/7/4/045404.
- Mernild, S. H. and G. E. Liston 2012. Greenland freshwater runoff. Part II: Distribution and trends, 1960–2010. *Journal of Climate*, 25(17), 6015–6035, doi.org/10.1175/JCLI-D-11-00592.1.

## Media

SHM has media experience, and has since 2006 been exposed in newspapers, TV, radio more than 800 times.