

**JÖRG HAARPAINNER, PhD**

## Senior Research Scientist in Earth Observation

in the Climate & Environment Division at NORCE – Norwegian Research Centre AS in Tromsø, Norway, working on the application of satellite-borne synthetic aperture radar (SAR) for operational monitoring. I started my research career in polar research using active microwave sensors during my PhD at the Norwegian Polar Institute and then at the national ice services in the US and Norway. Currently, I am focusing my research on the terrestrial application of SAR, specifically on forest, land cover and change monitoring with a strong interest in sustainable development. I have been involved in several projects on tropical regions in regard to REDD+ and in GEO's Global Forest Observation Initiative (GFOI), leading the SAR processing, analysis and the service delivery to end users in Africa and South-America in EU FP7 and ESA projects. I am a member of ESA's Candidate Copernicus ROSE-L Mission Advisory Group and ESA's working group «Copernicus SAR Radiometric Enhanced Product» and a licensed drone pilot (Open category A1/A3 and A2).

**CONTACT & PERSONAL INFORMATION**

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Born in 1971 in Tönisvorst (Germany)  
German nationality, living abroad since 1987 (France, Norway, Australia, USA, Poland).

**PROFESSIONAL EXPERIENCE**

- Since 2019 **NORCE – Norwegian Research Centre AS (continuation of Norut employment)**  
Senior scientist/project manager in earth observation in the Climate & Environment Division and licensed drone pilot (cat. A1/A3, A2).  
**Main Projects:**
- *ARICA - A multi-directional analysis of refugee/IDP camp areas based on HR/VHR satellite data* (WP lead, NCBR, POLNOR-2019, 2020-2024).
  - *CONFER - Co-production of Climate Services for East Africa* (Participant, EU Horizon 2020, 2020–2024).
  - *Gold mine detection in DR Congo* (Participant, funded by Bundesanstalt für Geowissenschaften und Rohstoffe (Germany), 2022-2024).
  - *Intertidal zone mapping with Sentinel-1/2* (Project lead, Norwegian Environment Agency, 2019-2020).
  - *SAR-4-Africa* (Project lead, ESA, 2018-2019)
- 2005-2019 **Norut - Northern Research Institute, Tromsø (Norway)**  
Senior scientist in the department of earth observation
- R&D, project management/acquisition with focus on REDD+, forest land cover and change monitoring.
  - International cooperation including capacity building with developing countries.
  - R&D on SAR and scatterometer remote sensing of snow and sea ice and operational monitoring..
  - Certified UAS pilot.
  - PhD project supervision in tropical forest monitoring.
- Main projects:** *SAR-4-Africa* (Lead, ESA, 2018-2019), *NorthState-TromsSAR* (Lead, FramCentre Tromsø Terrestrial Flagskip, 2017), *SAR for REDD* (Lead, ESA DUE Innovator III, 2015-2017), *NorthState* (EU FP7, 2013-2016), *Tanzanian-Norwegian Cooperation* (WP leader, Norwegian Embassy in Dar-Es-Salaam, 2011-2015), *ReCover* (WP leader, EU FP7, 2010-2013), *SAMBA-CAR-ReCover* (Lead, PhD project, Norwegian Research Council, 2012-2015).
- 2003-2004 **Norwegian Meteorological Institute, Tromsø (Norway)**  
Researcher for the operational ice service.
- R&D on remote sensing for operational sea ice monitoring and climate change (SAR and scatterometry).
  - Advising the ice analysts.
  - Scientific contribution to ICEMON (ESA project).
  - Guest lecturer at the University Centre in Svalbard (Norway).
- 2002-2003 **National Ice Center (NIC), Washington DC (USA)**  
Post-Doc/Visiting Scientist of Univ. Corporation of Atmospheric Research (NASA/NOAA grant).
- R&D on QuikScat satellite scatterometry (QS) for sea ice and climate change research.
  - Implementation of QS in the operational sea ice analysis.
  - Contribution to implement QS in the EUMETSAT O&SI SAF.
  - Participation in the ICEX ice camp in the Beaufort Sea (April 2003).

## Cont. PROFESSIONAL EXPERIENCE

- 2001 **Cooperative Research Centre for Greenhouse Accounting, Canberra, Australia** (5 months).  
Assistant to the Education Manager.
- Preparation, organisation and coordination of professional short courses about carbon accounting in sinks based on the Kyoto Protocol and the IPCC Special Report “Land-use, land-use change and forestry”.
  - Bibliographic research, outlining of the course plan, organisation of venue and fieldwork.
- 1997 - 2001 **Norwegian Polar Institute, Tromsø (Norway) and Longyearbyen (Svalbard, 1997-1998)**  
PhD project “Brine formation through ice production in Storfjorden, Svalbard, estimated by ERS-2 SAR imagery and simple ice drift and ice formation models” supported by grants of the EU (MAST3) and the Norwegian Research Council (ALV), participating and leading oceanographic cruises, fieldwork on sea ice, proposal writing and reporting to EU and NFR.
- 1996 **Laboratory for Atmospherical Optics (LOA), Lille, France** (4 months training)
- Remote sensing of sea-ice using active microwave and passive radiometry sensors.
- 1995 **Eurocopter Deutschland GmbH, Munich, Germany** (2 months training)
- Spectrometry of Night Vision Imaging Systems and thermal imagery of trees.

## EDUCATION

### University of Versailles - St.Quentin-En-Yvelines, France

- 1997-2001 **PhD in Physical Methods for Remote Sensing with distinction “Très honorable avec félicitation du jury”**
- 1997-1998 Sea-Ice-Air Interaction, Polar Oceanography & Polar Meteorology (University Courses on Svalbard)
- 1995-1996 “Diplôme d’Études Approfondies” in Physical Methods for Remote Sensing” (Masters)
- 1993-1995 “Licence” & “Maîtrise” in Applied Physics (Masters), Option: Signal processing & telecomm.
- 1991-1993 Basic science studies (Mathematics and Physics) "DEUG A" (Bachelor)
- 1991 “Baccalauréat international en science”, Lycée de Sèvres, France

### Continuing Education

- Fall 2005 International Sustainable Development (University of Tromsø, Norway)
- Aug. 2004 2<sup>nd</sup> ENVISAT Summer-School “Earth System Monitoring and Modelling” (ESA ESRIN, I-Frascati)
- Summer 2002 Sustainable International Development (US Dep. for Agriculture (USDA), Washington DC, USA)
- Fall 2001 Managing and Developing Teams (Canberra Institute of Technology, Australia)
- Nov. 2001 How to measure forest carbon – A short course (CRC for Greenhouse Accounting, Australia)

## LANGUAGES

- German:** Mother tongue
- English:** Fluent - working language, resident in Australia (1 year) and in the US (15 months)
- French:** Fluent - resident in France from 1987 to 1997
- Norwegian:** Fluent - resident in Norway since 1997
- Polish:** Advanced beginner - accomplished Level A0 and A1 at IKO language school, Warszawa, Poland
- Russian:** Beginner - 2-month stay in Kazakhstan in 1996 and one course at USDA (fall 2002)
- Spanish:** Beginner - 2 weeks intensive course in September 2003 and 1 semester at Folkeuniversitet Tromsø

## MISCELLANEOUS

- Licensed drone pilot category A1/A3 and A2.
- Member of ESA’s ESA L-band SAR Mission Advisory Group (since 2018) and ESA’s working group «Copernicus SAR Radiometric Enhanced Product».
- Co-guest-editor for the journal “Remote Sensing”, Special Issue “Forest Disturbance Monitoring Using Satellite Remote Sensing”.
- Reviewer for Journal of Geophysical Research, IEEE GRSL & JSTARS, Remote Sensing.
- Board member of NORCE Bedriftsidrettslag (since 2022)
- Deputy board member of the basketball club “Tromsø Storm Ungdom” (2021-2022)
- Deputy for the employee representative board member of NORCE (2020-2022)
- Board member of Norrøna Barnehage AS (2011-2015)
- Board member of Vestre Hansmark Borettslag (2009-2011)
- Member of the Norwegian Red Cross Rescue Team (1<sup>st</sup> Aid certified and Mountain Rescue Course): 2005-2006
- Basketball trainer for under-10 and under-12 age group (Tromsø Storm Ungdom): 2015-2017.

## Main Publication from recent years

### Total Number of Publications:

59 according to Google Scholar, h-index 15, 1266 citations.

### Main Publication since recent years:

- Davidson, M., M. Chini, W. Dierking, S. Djavidnia, **J. Haarpaintner**, G. Hajduch, G.V. Laurin, M. Lavalle, C. Lopez Martinez, T. Nagler, N. Pierdicca, and B. Su. (2019). Copernicus L-band SAR Mission Requirements Document. *European Space Agency doc. ESA-EOPSM-CLIS-MRD-3371*, July 2019.
- Desclée, B., Ph. Mayaux, M. Hansen, P. Lola Amani, C. Sannier, B. Mertens, T. Häusler, R. Ngamabou Siwe, H. Poilvé, V. Gond, M. Rahm, **J. Haarpaintner**, and J-P. Kibambe Lubamba, “Chapter 1. Evolution of forest cover at a national and regional scale and drivers of change”, pp. 21-46 in “*The Forests of the Congo Basin - State of the Forest 2013.*” by C. de Wasseige, J. Flynn, D. Louppe, F. Hiol, and Ph. Mayaux (eds.), Weyrich Édition, Belgium, 328 p., Legal deposit: D/2014/8631/42, ISBN: 978-2-87489-299-8, 2014.
- **Haarpaintner, J.** (2016). SAR for REDD+ in the Mai Ndombe District (DRC). *Proc. ‘Living Planet Symposium 2016’, ESA SP-740, August 2016, ISBN 978-92-9221-305-3, ISSN 1609-042X.*
- **Haarpaintner, J.** & Davids, C. Mapping Atmospheric Exposure of the Intertidal Zone with Sentinel-1 CSAR in Northern Norway. *Remote Sens.* 2021, 13, 3354. <https://doi.org/10.3390/rs13173354>
- **Haarpaintner, J.** & C. Davids. Satellite Based Intertidal-Zone Mapping from Sentinel-1&2. Final Report, *NORCE Klima Report nr. 2-2020. NORCE – Norwegian Research Centre AS, Bergen, Norway. March 2020.*
- **Haarpaintner, J.**, C. Davids, et al. (2016). Boreal Forest Landcover Mapping in Iceland and Finland using Sentinel-1A. *Proc. ‘Living Planet Symposium 2016’, ESA SP-740, August 2016, ISBN 978-92-9221-305-3, ISSN 1609-042X.*
- **Haarpaintner, J.**, C. Davids, H. Hindberg, E. Zahabu, and R.E. Malimbwi (2015). Forest and Forest Change Mapping with C- and L-band SAR in Liwale, Tanzania. *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XL-7/W3, 391-395, doi:10.5194/isprsarchives-XL-7-W3-391-2015, 2015.*
- **Haarpaintner, J.**, D. de la Fuente Blanco, F. EnÛle, P. Datta, A. Mazinga, C. Singa & L. Mane (2015). Tropical Forest Remote Sensing Services for the Democratic Republic of Congo inside the EU FP7 ‘ReCover’ Project (Final Results 2000-2012). *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XL-7/W3, 397-402, doi:10.5194/isprsarchives-XL-7-W3-397-2015, 2015.*
- **Haarpaintner, J.**, and H. Hindberg (2019). Multi-Temporal and Multi-Frequency SAR Analysis for Forest and Land Cover Mapping in the Mai-Ndombe District (DRC). *Remote Sens.* 2019, 11(24), 2999; <https://doi.org/10.3390/rs11242999>.
- **Haarpaintner, J.**, H. Hindberg, T.G. Yitayew, I. Arntzen, and R. Main. 2020. Advanced Sentinel-1 Analysis Ready Data for Africa (ESA EO4SD: SAR-4-Africa), D5 – Final Report, ESA EO4SD project “SAR-4-Africa”. *NORCE Klima Report nr. 3-2020. NORCE – Norwegian Research Centre AS, Bergen, Norway. April 2020.*
- **Haarpaintner, J.**, H. Hindberg, T.G. Yitayew, B.D. Killough, R. Mathieu, L. Mane, B. Gessesse Awoke, S. Ofori-Ampofo, E. Boamah (2019). Time-Series and Applications of Advanced Sentinel-1 Analysis Ready Data for Africa (SAR-4-Africa). Presentation at VH-RODA and CEOS WGCV SAR 2019 workshop, ESA ESRIN, Frascati, Italy, 18–22 November 2019.
- **Haarpaintner, J.**, B.D. Killough, S. Ofori-Ampofo, and E. Boamah (2019). Galamsey Monitoring with Sentinel-1 in Ghana. 21st William T. Pecora Memorial Remote Sensing Symposium (Pecora 21) and the 38th International Symposium on Remote Sensing of Environment (ISRSE-38), Baltimore (MD), USA, 6-10 Oct. 2019
- Reiche, J., R. Lucas, A.L. Mitchell, J. Verbesselt, D.H. Hoekman, **J. Haarpaintner**, J.M. Kellndorfer, A. Rosenqvist, E.A. Lehmann, C.E. Woodcock, F.M. Seifert and M. Herold (2016). Combining satellite data for better tropical forest monitoring. *Nature Climate Change* 6(2),120-122, DOI: 10.1038/nclimate2919.
- Rotschky, G., T.V. Schuler, **J. Haarpaintner**, J. Kohler, E. Isaksson. Spatio-temporal variability of snow melt on Svalbard during the period 2000-2008 derived from QuikScat/SeaWinds scatterometry. *Polar Research*, 30, 5963, 2011.
- Trier, Ø.D., A-B. Salberg, **J. Haarpaintner**, D. Aarsten, T. Gobakken, and E. Næsset. (2018) Multi-sensor forest vegetation height mapping methods for Tanzania, *European Journal of Remote Sensing*, 51(1), 587-606, DOI: 10.1080/22797254.2018.1461533.

## Complete List: SCIENTIFIC PUBLICATIONS, PRESENTATIONS & REPORTS

### 2023

- Aleksandrowicz, S.; Gromny, E.; Jenerowicz-Sanikowska, M.; **Haarpaintner, J.**; Espegren, A.; Sobczak-Szelc, K.; Chulek, M.; Wach, D. Detection of environmental changes in the surroundings of refugee camps in Tanzania and Bangladesh. *Abstract and oral presentation at the 39th International Symposium on Remote Sensing of Environment (ISRSE-39), Antalya, Turley, 24-28 Apr 2023.*
- Gomez, L., Jaramillo, C., Duque, A., Araujo, R., Arellano, G., Davies, S., Castaño, N., **Haarpaintner, J.**, Enßle, F. Zuleta, D. (2022). Canopy tree mortality is influenced by the proportion of crown exposed to sunlight, but their effects depend on species wood density. *Biotropica*, submitted.
- **Haarpaintner, J.**; Mwangi, K. Distinguishing crop types and land covers in Kenya using seasonal and percentile signatures of Sentinel-1 CSAR backscatter. *Abstract and oral presentation at the 39th International Symposium on Remote Sensing of Environment (ISRSE-39), Antalya, Turley, 24-28 Apr 2023.*

### 2022

- Gromny, E., **Haarpaintner, J.**, Aleksandrowicz, S., Jenerowicz-Sanikowska, M., Woźniak, E., Pesquer, L., Chulek, M., Starczewski, D., Pawlak, Z. (2022). Land cover change analysis around the Mtendeli refugee camp in Tanzania. *Poster presented at 'ESA Living Planet Symposium 2022', Bonn, Germany, 23-27 May 2022.*
- Gromny, E., **Haarpaintner, J.**, Aleksandrowicz, S., Jenerowicz-Sanikowska, M., Woźniak, Wawrzaszek, A., E., Pesquer Mayos, L., Chulek, M., Starczewski, D., Pawlak, Z. (2022). Analiza zmian pokrycia terenu wokół obozu uchodźców Mtendeli w Tanzanii. *Oral presentation at 'XXV OGÓLNOPOLOSKA KONFERENCJA FOTOINTERPRETACJI I TELEDETEKCJI, Warszawa, 28-30 Nov 2022.*
- **Haarpaintner, J.**, Gromny, E., Jenerowicz-Sanikowska, M., Chulek, M., Wach, D., Sobczak-Szelc, K., Espegren, A., Aleksandrowicz, S., Starczewski, D. (2022). Investigating the mutual impact between refugee camps and their environment with Sentinel-1&2 time-series - Preliminary results of the ARICA project. *Poster presented at 'ESA Living Planet Symposium 2022', Bonn, Germany, 23-27 May 2022.*
- Sobczak-Szelc, K.; Wach, D.; Chulek, M.; **Haarpaintner, J.**; Espegren, A.; Gromny, E.; Jenerowicz-Sanikowska, M.; Aleksandrowicz, S. The role of remote sensing data in mitigation of the impact of establishment and development of refugee camps on the natural environment – examples from Bangladesh and Tanzania. Extended abstract and poster at Wittgenstein Centre Conference 2022, Vienna, Austria, 30 Nov 2022.

### 2021

- Davids, C.; **Haarpaintner, J.** Mapping intertidal zones using time series of Sentinel-2. *Oral presentation online at 40<sup>th</sup> EARSeL Symposium 2021, University of Warsaw, 7-10 June 2021.*
- **Haarpaintner, J.** Radar Analysis Ready Data for Central African Forest Monitoring. *Oral presentation at Virtual International workshop "Congo Basin Forest Monitoring For Sustainable Management", NASA - START - GODC-GOLD - OSFAC, 12-13 July 2021.*
- **Haarpaintner, J.** & Davids, C. Mapping Atmospheric Exposure of the Intertidal Zone with Sentinel-1 CSAR in Northern Norway. *Remote Sens.* 2021, 13, 3354. <https://doi.org/10.3390/rs13173354>
- **Haarpaintner, J.** & Davids, C. Mapping Atmospheric Exposure in the Intertidal Zone with Sentinel-1 CSAR in Norway. *Oral presentation online at 40<sup>th</sup> EARSeL Symposium 2021, University of Warsaw, 7-10 June 2021.*
- **Haarpaintner, J.**, Davids, C., Hindberg, H., Arntzen, I., and Borch, N. Satellite-Based National Intertidal-Zone Mapping of Continental Norway with Sentinel-1&2. *NORCE Klima Report 1-2021, Norwegian Environment Agency Report M-1994; NORCE—Norwegian Research Centre AS: Bergen, Norway, 2021.*

### 2020

- **Haarpaintner, J.** & C. Davids. Satellite Based Intertidal-Zone Mapping from Sentinel-1&2. Final Report, *NORCE Klima Report nr. 2-2020. NORCE – Norwegian Research Centre AS, Bergen, Norway. March 2020.*
- **Haarpaintner, J.**, Davids, C., Hindberg, H., Arntzen, I., and Borch, N. Mapping atmospheric exposure of the intertidal zone with Sentinel-1. *Oral presentation online, Havforskermøte, 20-21 October 2020.*
- **Haarpaintner, J.**, Davids, C. Mapping atmospheric exposure of the intertidal zone with Sentinel-1. *Oral presentation online, Miljødirektoratets Fjernmålingsseminar 2020, 8 December 2020.*
- **Haarpaintner, J.**, H. Hindberg, T.G. Yitayew, I. Arntzen, and R. Main. 2020. Advanced Sentinel-1 Analysis Ready Data for Africa (ESA EO4SD: SAR-4-Africa), D5 – Final Report, ESA EO4SD project "SAR-4-Africa". *NORCE Klima Report nr. 3-2020. NORCE – Norwegian Research Centre AS, Bergen, Norway. April 2020.*

### 2019

- Davidson, M., M. Chini, W. Dierking, S. Djavidnia, **J. Haarpaintner**, G. Hajduch, G.V. Laurin, M. Lavalle, C. Lopez Martinez, T. Nagler, N. Pierdicca, and B. Su. (2019). Copernicus L-band SAR Mission Requirements Document. *European Space Agency doc. ESA-EOPSM-CLIS-MRD-3371, Revision 2.0, 10 October 2019.* [https://esamultimedia.esa.int/docs/EarthObservation/Copernicus\\_L-band\\_SAR\\_mission\\_ROSE-L\\_MRD\\_v2.0\\_issued.pdf](https://esamultimedia.esa.int/docs/EarthObservation/Copernicus_L-band_SAR_mission_ROSE-L_MRD_v2.0_issued.pdf)
- **Haarpaintner, J.** (2019). Radar Remote Sensing for Africa and some Applications in the North. *Oral presentation at NORCE Climate Science Day, Bergen, Norway, 20 June 2019.*
- **Haarpaintner, J.** (2019). *D3.1 - Initial ASARD Product Report, Delivery 3.1 of ESA EO4SD project SAR-4-Africa, April 2019.*
- **Haarpaintner, J.**, and C. Davids (2019). Satellite-Based Intertidal-Zone Mapping from Sentinel-1&2. *Preliminary Project Report to the Norwegian Environment Agency.*
- **Haarpaintner, J.**, and C. Davids (2019). Intertidal Zone Mapping with Sentinel-1&2. *Oral presentation at Fjernmålingsseminar, Miljødirektoratet, Oslo, 18. November 2019.*
- **Haarpaintner, J.**, and H. Hindberg (2019). Multi-Temporal and Multi-Frequency SAR Analysis for Forest Land Cover Mapping of the Mai-Ndombe District (Democratic Republic of Congo). *Remote Sens.* 2019, 11(24), 2999; <https://doi.org/10.3390/rs11242999>.
- **Haarpaintner, J.**, H. Hindberg, T.G. Yitayew, B.D. Killough, R. Mathieu, L. Mane, B. Gessesse Awoke, S. Ofori-Ampofo, E. Boamah (2019). Time-Series and Applications of Advanced Sentinel-1 Analysis Ready Data for Africa (SAR-4-Africa). *Oral presentation at Very High-resolution Radar & Optical Data Assessment (VH-RODA) and CEOS WGCV SAR 2019 workshop, Frascati, Italy, 18–22 November 2019.*
- **Haarpaintner, J.**, H. Hindberg, T.G. Yitayew, B.D. Killough, R. Mathieu, L. Mane, B. Gessesse Awoke, S. Ofori-Ampofo, E. Boamah (2019). Time-Series and Applications of Advanced Sentinel-1 Analysis Ready Data for Africa (SAR-4-Africa). *Oral presentation at joint meeting of the 21st William T. Pecora Memorial Remote Sensing Symposium (Pecora 21) and the 38th International Symposium on Remote Sensing of Environment (ISRSE-38), Baltimore (MD), USA, 6-10 Oct. 2019.*

- **Haarpaintner, J.**, B.D. Killough, S. Ofori-Ampofo, and E. Boamah (2019). Galamsey Monitoring with Sentinel-1 in Ghana. *Oral presentation at joint meeting of the 21st William T. Pecora Memorial Remote Sensing Symposium (Pecora 21) and the 38th International Symposium on Remote Sensing of Environment (ISRSE-38)*, Baltimore (MD), USA, 6-10 Oct. 2019.
- **Haarpaintner, J.**, B. Killough, R. Mathieu, L. Mane, B. Gessesse Awoke (2019). Advanced Sentinel-1 Analysis Ready Data for Africa. *Presentation at 'ESA Living Planet Symposium 2019'*, Milan, Italy, 13-17 May 2019.
- Pierdicca, N., M. Davidson, M. Chini, W. Dierking, S. Djavidnia, **J. Haarpaintner**, G. Hajduch, G. Vaglio Laurin, M. Lavallo, C. Lopez Martinez, T. Nagler, and B. Su. "The Copernicus L-band SAR mission ROSE-L (Radar Observing System for Europe) (Conference Presentation)", Proc. SPIE 11154, Active and Passive Microwave Remote Sensing for Environmental Monitoring III, 111540E (18 October 2019); <https://doi.org/10.1117/12.2534743>

## 2018

- **Haarpaintner, J.** (2018). Monitoring Forest/Land Cover and Forest Cover Change in Tropical Rainforest in DRC. In "GFOI R&D Programme - Technical Progress Report", Global Forest Observations Initiative, 41-43, [http://www.gofcgold.wur.nl/documents/GFOI/gfoi-rd-progressreport\\_17apr2018.pdf](http://www.gofcgold.wur.nl/documents/GFOI/gfoi-rd-progressreport_17apr2018.pdf).
- **Haarpaintner, J.**, B. D. Killough, S. Ampofo Ofori and E.O. Boamah (2018). Advanced Sentinel-1 Analysis Ready Data for the Ghana Open Data Cube and Environmental Monitoring. *Oral presentation at 7<sup>th</sup> International Workshop on Retrieval of Bio- & Geo-physical Parameters from SAR Data for Land Applications*, Oberpfaffenhofen, Germany, 12-15 November 2018.
- **Haarpaintner, J.** (2018). ESA DUE – Innovator III SAR for REDD - D2.3 Final Report (FR). *NORUT Report 5/2018*, ISBN 978-82-7492-405-5, ISSN 2535-3004, Norut - Northern Research Institute, Tromsø, Norway, 22 March 2018.
- **Haarpaintner, J.**, (2018). Forest and forest loss mapping from ALOS to ALOS-2 in the Mai-Ndombe District, DRC. *Oral presentation at the 3rd PI Workshop of the Advanced Land Observing Satellite-2 Research Announcement (ALOS-2 RA)*, Tokyo, Japan, 22-25 Jan. 2018.
- **Haarpaintner, J.** (2018). Comparison of single (C/L-band) and multi-frequency SAR-based tropical forest mapping in the Mai Ndombe district, DRC. *Oral presentation at ForestSAT 2018*, University of Maryland, College Park, MD, USA, 2-5 October 2018.
- **Haarpaintner, J.**, & H. Tømmervik (2018). Sentinel-1 CSAR Forest Land Cover Mapping of Troms County. *Poster at ForestSAT 2018*, University of Maryland, College Park, MD, USA, 2-5 October 2018.
- Trier, Ø.D., A-B. Salberg, **J. Haarpaintner**, D. Aarsten, T. Gobakken, and E. Næsset. (2018) Multi-sensor forest vegetation height mapping methods for Tanzania, *European Journal of Remote Sensing*, 51(1), 587-606, DOI: 10.1080/22797254.2018.1461533.
- Ørka, H.O., V. Strimbu, **J. Haarpaintner** and T. Gobakken (2017). Mapping conifer trees by means of remote sensing (Kartlegging av bartrær ved bruk av fjernmåling). Final project report. *Norges miljø- og biovitenskapelige universitet, Report M-939/2018*, 34 pages, version 9. April 2018. <http://tema.miljodirektoratet.no/Documents/publikasjoner/M939/M939.pdf>.
- Ørka, H.O., V. Strimbu, **J. Haarpaintner**, A. Sverdrup-Thygeson and T. Gobakken (2018). Mapping natural forest by means of remote sensing (Kartlegging av naturskog ved bruk av fjernmåling). Final project report. *NMBU - Norges miljø- og biovitenskapelige universitet, Report M-940/2018*, 43 pages, version 9. April 2018. <https://tema.miljodirektoratet.no/Documents/publikasjoner/M940/M940.pdf>.

## 2017

- **Haarpaintner, J.**, A. Mazinga, and L. Mane (2017). Sentinel-1 Forest Land Cover Classification and Forest Change of the Mai-Ndombe District, D.R. Congo. *Poster at the Worldcover 2017 Conference, ESA/ESRIN, Frascati, Italy, 14-16 March 2017*.
- **Haarpaintner, J.**, & H. Hindberg (2017). D2.1 – Product Delivery Report (PDR), *Delivery 2.1 for ESA DUE – Innovator III project "SAR for REDD"*, 4 Apr 2017.
- **Haarpaintner, J.** & C. Singa (2017). D2.2 – Product Validation Report (PVR), *Delivery 2.2 for ESA DUE – Innovator III project "SAR for REDD"*, 18 Apr 2017.
- **Haarpaintner, J.** (2017). D2.3 – Final Report (FR), *Delivery 2.3 for ESA DUE – Innovator III project "SAR for REDD"*, version 1.0 24 Apr 2017.
- **Haarpaintner, J.** & H. Tømmervik (2017). NorthState TromSAR - Climate Variability in SAR Land Cover Monitoring. Report in Research Database, Fram Centre, <http://www.ifram.no/db.343156.no.html?lid=436.9d85d5fe2a30b13501bb4975ad1ed032>.
- **Haarpaintner, J.** (2017). Forest and Forest Loss Mapping with SAR from the ENVISAT/ALOS era to the Sentinel-1/ALOS-2 present in the Mai-Ndombe District, DRC. *Oral presentation at the 37th International Symposium on Remote Sensing of Environment (ISRSE-37)*, Tshwane, South Africa, 8-12 May 2017.
- **Haarpaintner, J.** (2017). Validation of SAR-based forest land cover and forest change maps and detectability of slash-and-burn activities in the Kwamouth region, Mai-Ndombe District, DRC. *Oral presentation at the 37th International Symposium on Remote Sensing of Environment (ISRSE-37)*, Tshwane, South Africa, 8-12 May 2017.

## 2016

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