# Curriculum vitae with track record

\* ROLE IN THE PROJECT Project manager □ Work package leader □ Project partner ⊠

### \* PERSONAL INFORMATION

*Family name, First name:	Lasse Herbert PETTERSSON		
*Date of birth:	28.12.1957	*Sex:	Male
*Nationality:	Norwegian		
Researcher unique identifier(s) (ORCID, ResearcherID, etc.):  https://orcid.org/0000-0002-6005-7514 ResearcherID: AAM-9908-2020			
URL for personal website: <pre>https://www.nersc.no/staff/lasse-pettersson https://www.researchgate.net/profile/Lasse_Pettersson https://scholar.google.no/citations?user=dvfb6bgAAAAJ&amp;hl=r</pre>			

#### \* EDUCATION

	Name of faculty/department, name of university/institution, country
2001	Qualified as senior scientist at NERSC since January 2001, without PhD degree.
1984	University of Oslo: Thesis: <i>Airborne spectrometry – a tool for monitoring of water quality</i> .

<sup>\*</sup> POSITIONS (academic, business, industry, public sector, national or international organisations)

#### **Current Position**

	Job title/name of employer/country
2018-	Research coordinator: Nansen Environmental and Remote Sensing Center (NERSC)
2001-	Senior researcher – NERSC, Norway

### Previous positions held (list)

	Job title/name of employer/country
2012-2014	Acting Head of Administration - NERSC - Norway
1997-2018	Director international cooperation and marketing - NERSC - Norway
1992-1994	Director - TerraOrbit AS - Norway
1986-2001	Scientist - NERSC - Norway
1984-85	Part-time research assistant - Geophysical institute, University of Bergen - Norway

### FELLOWSHIPS, AWARDS AND PRIZES (if applicable)

	Name of institution/country
1993	The National Aeronautics and Space Administration (NASA) Group Achievements Award for the Topex/Poseidon Mission Design, February 1993.
1992&94	NASA Jet Propulsion Laboratory Certificate of Appreciation for the contribution to the success for the Topex/Poseidon Mission

## PROJECT MANAGEMENT EXPERIENCE (selected)

# Projects funded by Research Council of Norway, international research programmes, private or public organisations

	Project and role, funding from	
2021-	INTPART: Urban Sustainability in Action: Multi-disciplinary Approach through Jointly Organized Research schools (URSA MAJOR) – Project leader- Research Council of Norway.	
2017-2021	INTPART: Arctic cooperation between Norway, Russia, India, China and US in satellite Earth observation and Education (ARCONOR) – Project leader- Research Council of Norway.	
2012-16	CNR-ISMAR, Italy - Towards COast to COast NETworks of marine protected areas (from the shore to the high and deep sea), coupled with sea-based wind energy potential (CoCoNET) – NERSC project partner leader – European Commission FP7.	
2013-16	NERSC - NORRUS project <i>CLIMate variability and change in the Eurasian ARCtic in the 21st century</i> - Deputy project leader - Research Council of Norway.	
2012-15	NERSC - INDNOR project INDIA-CLIM: Decadal to multi-decadal variability in the Indian Monsoon Rainfall and teleconnection with Atlantic Multidecadal Oscillation (AMO) - Deputy project leader - Research Council of Norway.	
2012-15	NERCI, India - Indo-European research facilities for studies of marine ecosystem and climate in India (INDO-MARECLIM) - Co-coordinator - European Commission FP7 INCOLAB.	
2010-2013	Thales Space, France - <i>AQUAMAR- Marine water quality services.</i> - NERSC project leader - European Commission FP7.	
2006-2009	Systems Technology Advance SLR, Italy - "Water Risk management in Europe (WARMER)"-NERSC project leader - European Commission FP6-IST.	
2006-2009	ESA GMES project "MarCoast - Marine and Coastal Information Services" and the matching Norwegian SatOcean - NERSC leader - European Space Agency (ESA) and Norwegian Space Centre.	
2004-2007	NERSC - EO-WINDFARM: Design and integration of an EO-Based Information Service for planning, constructing and operation wind farms Project co-ordinator – ESA.	
-2005	NERSC - Climate and Environmental Change in the Arctic (CECA) - Deputy project coordinator – Elected laureate of the EC Descartes Research prize for excellence in scientific collaborative research for 2005.	
2001-2005	NERSC – HABILE: Harmful Algae Bloom Initiation and Prediction in Large European Marine Ecosystems, Research Council of Norway project MORAN: Integrating modelling and remote sensing for algae bloom monitoring in Norwegian Waters. ROSES: GMES application project and ENVISAT MERIS validation project for Norwegian coastal waters Project co-ordinator - EC RDT, Research Council of Norway and ESA	
2000-2003	NERSC – <i>PROOF: Estimation of Primary Production for Fisheries Management.</i> Project coordinator – European Commission FP5-EESD.	
2000-2003	NERSC - Sustainable management of the ecosystem and marine living resources in the White Sea (WHITESEA) and Simulation scenarios for potential radioactive spreading in the 21st century from rivers and external sources in the Russian Arctic coastal zone (RADARC). Deputy project coordinator - European Commission INCO Copernicus-2 projects with extensive Russian participation.	
2000-2003	NERSC – FJOMP: Fisheries, Earth Observation and Modelling. Project leader - Norwegian Space Centre.	
1998-2000	NERSC - Service development and operational demonstration of use of ocean colour data for monitoring of algae blooms on Norwegian waters and Applications of EO data and models in fisheries statistics and management Project leader – Several funding agencies and industry. NERSC- DeciDe for Near Real-time use of Ocean Color Data in Hazard Management of Toxic Algae Blooms. Project leader – ESA.	
1998-99	NESTE, Finland - Arctic Demonstration and Exploratory Voyage - ARCDEV on ship navigation in the Kara Sea. NERSC project leader – European Commission FP4-Transport	

	NERSC - Study on a market survey for satellite earth observation data in the Russian Federation. – project leader - European and Russian Space Agencies.
Since 1988	Responsible for the establishment, development, implementation, and operations of regular satellite monitoring of harmful algae blooms in Norwegian waters for scientific and operational use, presented at the web <a href="http://HAB.nersc.no">http://HAB.nersc.no</a> (operational until 2018). Including the NFR project NORSMAP'89 - Norwegian Remote Sensing Spectrometry for Mapping and Monitoring of algae Blooms and Pollution (1989-1993).

# SUPERVISION OF GRADUATE STUDENTS AND RESEARCH FELLOWS (if applicable)

	No. of	Master's students/ Ph.D./Postdocs	Name of faculty/department/centre, name of university/institution/country
2021	2	PhD	External supervisor, Geophysical Institute/NERSC INSTSTIP and Dept. of Physics and technology, Univ. of Bergen
Since 1997	7	PhD students	Nansen International Environmental and Remote Sensing Center, St. Petersburg, Russia. Supervision (7) and management/coordination (29) of students under the Nansen Fellowship programme.
2007	1	Master	Erasmus MUNDUS – European Joint Master @ University of Bergen.
Since 2009	4	PhD students	Nansen Environmental Research Centre India, Cochin India. Supervision of 5 students under the Nansen Fellowship programme.
1994	2	Master	Bergen Technical University College.

# TEACHING ACTIVITIES (if applicable)

	Teaching position – topic, name of university/institution/country
Since 2007	Lecturer, organizer and co-host of 13 international Nansen research summer/winter schools for PhD and Post-docs, with more than 400 student participants, including the summer schools of the <i>Norwegian Scientific Academy for Polar Research</i> in 2011, 2013, 2015 and 2017 in Longyearbyen.
2002-05	Manuscript/textbook and teaching for the secondary school education module for teachers and pupils at Andøya Rocket Range: <i>Mankind and Space; Satellites orbiting the Earth</i> .

# ORGANISATION OF MEETINGS (if applicable)

	Role and name of event/number of participants/country
2020	Organizer of OCEAN SPACE: Indo-Norwegian seminar on cooperation in Ocean, Climate and Polar research, education and technology and The 20 <sup>th</sup> anniversary of Nansen Environmental Research Centre – India (NERCI) at Indian Institute of Technology Madras, Chennai on the occasion of the official Norwegian Research and Higher Education Delegation visit to India.
2007-	Organizer of 13 international Nansen research summer/winter research schools for PhD and Postdocs, with more than 400 student participants, including the summer schools of the <i>Norwegian Scientific Academy for Polar Research</i> in 2011, 2013, 2015 and 2017 in Longyearbyen.
2001-	Organisation of 2 conferences (≈400 participants) and six large-scale workshops (100±) related to project implementation and research topics in Norway, India and Russia.

### **INSTITUTIONAL RESPONSIBILITIES**

	Name of university/institution/country
1994-2013	Representative of the employees in the board Nansen Environmental and Remote Sensing Center, Bergen, Norway.

# COMMISSIONS OF TRUST IN ACADEMIC, PUBLIC OR PRIVATE ORGANISATIONS

Name of university/institution/country – and role

1993-	Secretary general/Board member /Vice-president – Nansen International Environmental and Remote Sensing Center (NIERSC) – Russia.
2000-	Chairman and member of Board – Nansen Environmental Research Centre India – India (NERCI).
2011-16	Board member – Nansen Bangladesh Centre for Coastal, Ocean and Climate studies (BCAS) – Bangladesh.
2014-2021	Board member – Norsk Klimastiftelse - Norway
2015-2017	Chairman of Board, TerraOrbit AS, Bergen, Norway

#### MEMBERSHIPS OF ACADEMIES / SCIENTIFIC SOCIETIES / NETWORKS

	Name of academies, scientific societies, networks
2005-06	Member of ESA Scientific Assessment Panel for 2 <sup>nd</sup> Earth Explorer Core Missions, including ocean and sea ice missions.
1994-2007	Member of the ESA Science Advisory Group (SAG) for the MERIS ocean colour sensor on ENVISAT.
1993-2003	Norwegian delegate to the Committee for Earth Observation from Space (CEOS) - Working group on Calibration and Validation (WGCV).
1992-2011	Principal Investigator NASA Ocean Color SeaWiFS Science Team.
1987-2002	Principal Investigator in the joint CNES and NASA Topex/Poseidon radar altimeter science team.

### Track record

The total *number* of publications is 84 (ISI Web of Science).

GoogleScholar: h-index: 23. Most sited paper 1094 times. Most sited paper/book lead author 81 times.

#### Ten Publications

- 1. **Pettersson, L. H.** and Pozdnyakov, D. V. (2012): *Monitoring of harmful algal blooms*. Springer Praxis Publishing, Book pp. 310, ISBN 978-3-540-22892-9. 2012.
- 2. Johannessen, O.M., L. Bengtsson, M.W. Miles, S.I. Kuzmina, V. Semenov, G.V. Alekseev, A.P. Nagurny, V.F. Zakharov, L.P. Bobylev, **L.H. Pettersson**, K. Hasselmann, H.P. Cattle, (2004): *Arctic Climate Change Observed and Modelled Temperature and Sea Ice*. Tellus, Dynamic meteorology and oceanography, Series A: Vol.56A, no. 3, pp. 1-18, May 2004.
- 3. Johannessen O.M., V. Yu. Alexandrov, I. Ye. Frolov, S. Sandven, **L. H. Pettersson**, L. P. Bobylev, K. Kloster, V. G. Smirnov, E. Yu. Mironov and N. G. Babich. *Remote Sensing of Sea Ice in the Northern Sea Route: Studies and Applications*. Nansen Centers polar series no. 4, Springer-Praxis, 2007, pp. 472, ISBN: 3-540-24448-4.
- 4. **Pettersson, Lasse H.,** Anton Kjelaas, Dmitry V. Kovalevsky and Klaus Hasselmann, (2020): Ch 11: *Climate Change Impact on the Arctic Economy.* In Sea ice in the Arctic Past, present and future. Johannessen, O.M., Bobylev, L., Shalina, E.V., Sandven, S. (Eds.). Springer Polar Series. DOI: 10.1007/978-3-030-21301-5.
- 5. Pozdnyakov, D., **L.H. Pettersson** and A. Korosov (2017): *Exploring the marine ecology from space: Experience from Russian-Norwegian cooperation.* Springer International Publisher, Book no. 7 in Nansen Centers polar series. ISBN 978-3-319-30074-0, pp 215, doi: 10.1007/978-3-319-30075-7.
- 6. Silva, E, Counillon, F, Brajard, J, Korosov, A, **Pettersson, L**, Samuelsen, A, & N Keenlyside (2021). *Twenty-One Years of Phytoplankton Bloom Phenology in the Barents, Norwegian, and North Seas*. Frontiers in Marine Science. 8:746327. <a href="https://doi.org/10.3389/fmars.2021.746327">https://doi.org/10.3389/fmars.2021.746327</a>
- 7. Kondrik, D., D. Pozdnyakov and **L.H. Pettersson** (2017): *Particulate inorganic carbon production within E. huxleyi blooms in subpolar and polar seas: A satellite time series study (1998-2013).* International Journal of Remote Sensing, Vol. 38, Iss. 22, 2017. http://dx.doi.org/10.1080/01431161.2017.1350304
- 8. Boero, F., F. Foglini, S. Fraschetti, P. Goriup, E. Macpherson, S. Planes, T. Soukissian and the CoCoNEt Cocnsortium, including **LH. Pettersson**, LP. Bobylev, R. Davy, N. Gnatyuk, A. Korosov, DV. Pozdnyakov and S. Sandven (2017): *CoCoNet: Towards Coast to Coast Networks of Marine Protected Areas (from the shore to the high and deep sea), coupled with Sea-Based Wind Energy Potential*. SCIRESit, Vol. 6, Supplement, 2016, 1-95p., doi:10.2423/i22394303v6Sp1.