

Sourav Chatterjee

DoB: 30 June 1989

National Centre for Polar and Ocean Research, Goa
Ministry of Earth Sciences, Govt. of India
Headland Sada, Vasco-da-Gama, Goa- 403804
srv.sxc@gmail.com ; sourav@ncpor.res.in
[Google Scholar](#) [ResearchGate](#) [ORCID](#)

EDUCATION

PhD Goa University, India 2019-2024
Thesis: Sea ice changes in the Arctic and its influence on Indian Summer Monsoon

Graduate Aptitude Test in Engineering (GATE-2012), Mathematics
All India Rank (AIR) - 24

Master of Science, Mathematics with Computer Applications
National Institute of Technology, Durgapur, India 2010-2012
CGPA 9.02

Bachelor of Science, Mathematics (Hons.)
St. Xavier's College, Kolkata, India 2007-2010
Percentage: 60

PROFESSIONAL EXPERIENCE

National Centre for Polar and Ocean Research, Goa, India Scientist (D)
March 2014 – Present

Arctic Group: Atmosphere-Ocean Interaction Studies Division

- **Research Areas:** Arctic and Sub-Arctic Oceans Fluxes; Large scale atmospheric circulations; Pole-Tropics Teleconnections; Air-sea-ice interactions.

Nansen Environmental and Remote Sensing Center, Bergen, Norway

Nansen Scientific Society Fellow

August 2016 – September 2016

August 2022 – October 2022

Indian Institute of Tropical Meteorology, Pune, India

Trainee Scientist

August 2012 – December 2013

Award:

- Best Research Contribution, 2018 at NCPOR, Goa
- Best Research Contribution, 2019 at NCPOR, Goa
- Emerging Leaders Programme 2020 - Arctic Frontiers

Expedition:

- Arctic: 2014, 2015, 2016, 2017, 2018, 2022, 2023
- Antarctic: 2014-15, 2015-16, 2016-17, 2018-19

Membership:

Indian Meteorological Society

Ocean Society of India

International Arctic Science Committee (IASC) : Atmospheric Working Group

Svalbard Integrated Arctic Earth Observing System (SIOS): Remote Sensing Working Group

Scientific Steering Committee: International Conference on Arctic Research Planning (ICARP-IV), 2025

Peer-Reviewed Publications

Chatterjee, S., Smith, DM., Ravichandran, M., Murukesh, N.: Potential contribution of Barents–Kara Sea ice loss to the increased rainfall over northwest India through atmospheric teleconnection, **Climate Dynamics**, 64, <https://doi.org/10.1007/s00382-026-08169-1> (2026)

Teesha Mathew, Subeesh Meethale Puthukkottu, Divya T David, Vidya Pottekkatt Jayapalan, Ahammed Shereef, Nuncio Murukesh, **Sourav Chatterjee**: Phytoplankton bloom in an Arctic fjord during late-summer in response to Atlantic water inflow and atmospheric forcings, **Journal of Geophysical Research: Oceans**, 131(7), <https://doi.org/10.1029/2025JC023453> (2026)

Ajilesh Parolla, K Satheesan, **Sourav Chatterjee**, Sujithlal SP, Rejoy Rebelo, Amal Joy, Avinash Paul, Anand Kumar Singh, Shailendra Saini, Nuncio Murukesh: Recent decadal wind patterns over Queen Maud Land, Antarctica: evaluation and intercomparison of reanalysis using a VHF radar, **International Journal of Remote Sensing**, 47(11), 4767-4791, <https://doi.org/10.1080/01431161.2026.2658814> (2026)

Hayward, A., Dasgupta, N., McAdam, R., Payne, M. R., Raj, R. P., Bonino, G., **Chatterjee, S.**, Combes, V., Denaxa, D., De Rovere, F., Englyst, P., Haapaniemi, V., Hargous, P., Høyer, J., Joseph, K. A., Lopes, B., Oliveira, A., Paixão, J., Silva, F., Surendran, S., Zegna-Rata, A., and Olsen, S.: Marine Heat waves – Multiple Analysis / Definitions (MHW-MAD): A Multi-Definition Global Marine Heatwave Dataset from Satellite Sea Surface Temperature data, **Earth Syst. Sci. Data Discuss.** [preprint], <https://doi.org/10.5194/essd-2025-590>, Accepted, (2025)

Yang Liu, Jianqi Sun, Roshin P Raj, Stine K Rose, Ole B Andersen, **Sourav Chatterjee**: The role of North Pacific teleconnection in the sea level change of the Canadian Basin, **Atmospheric and Oceanic Science Letters**, <https://doi.org/10.1016/j.aosl.2025.100752> (2025)

Rashmi Rawat, K Satheesan, **Sourav Chatterjee**, Rahul Rawat, Anand K Singh, Sheila Kirkwood, Evgenia Belova, Shailendra Saini: First results of polar mesospheric summer echoes: MARA radar observations from Maitri (70° S), Antarctica, **Advances in Space Research**, 76,331-342, <https://doi.org/10.1016/j.asr.2025.04.041> (2025)

Challet, F., Raj, R.P.,**Chatterjee, S.**, Herbaut, C. and Bonaduce, A.: Weakening of the Arctic water outflow from the Barents Sea and consequences on the Fram Strait warming, **Journal of Geophysical Research: Oceans**, Volume 130, Issue 4, <https://doi.org/10.1029/2024JC021054> (2025)

Chatterjee, S., Semmler, T., Screen, J.A., Furevik, T., Selivanova, J., Raj PR., Murukesh, N.: Atmosphere-ocean-ice feedbacks sustain recent Barents sea-ice loss despite cooler Atlantic Water inflow, **Journal of Climate**, <https://doi.org/10.1175/JCLI-D-24-0020.1> (2024)

Vidar Lien, Roshin P Raj, **Sourav Chatterjee**: Surface and bottom marine heatwave characteristics in the Barents Sea: a model study, in: 8th edition of the Copernicus Ocean State Report (OSR8), edited by: von Schuckmann, K., Moreira, L., Grégoire, M., Marcos, M., Staneva, J., Brasseur, P., Garric, G., Lionello, P., Karstensen, J., and Neukermans, G., Copernicus Publications, State Planet, 4-osr8, 8, <https://doi.org/10.5194/sp-4-osr8-8-2024>, (2024)

Vidya, P.J., **Chatterjee, S.**, Ravichandran, M. et al. Intensification of Arabian Sea cyclone genesis potential and its association with Warm Arctic Cold Eurasia pattern. **npj Clim Atmos Sci.** 6, 146, <https://doi.org/10.1038/s41612-023-00476-2> (2023)

Kirkwood, S., Belova, E., Voelger, P., **Chatterjee, S.**, and Satheesan, K.: Extended validation of Aeolus winds with wind-profiling radars in Antarctica and Arctic, Sweden. **Atmos. Meas. Tech.**, 16, 4215–4227, <https://doi.org/10.5194/amt-16-4215-2023>, (2023)

Athulya, R., Nuncio, M., **Chatterjee, S.**, Vidya, P.J.: *Characteristics of mean and extreme precipitation in Ny Ålesund, Arctic*, **Atmospheric Research**, <https://doi.org/10.1016/j.atmosres.2023.106989> (2023)

Nuncio, M., Athulya, R., Nandanan, N., **Chatterjee, S.** et al. *Hails in Ny Alesund, Svalbard-atmospheric vertical structure and dependence on circulation.*; **Nat Hazards.** <https://doi.org/10.1007/s11069-023-05907-0> (2023)

Subeesh M.P., Divya David T., Ravichandran M., **Sourav Chatterjee**, Ankit Pramanik, M. Nuncio. *Near-inertial waves in an Arctic fjord and their impact on vertical mixing of Atlantic water mass*, **Progress in Oceanography**, Volume 206,102844,<https://doi.org/10.1016/j.pocean.2022.102844>, (2022)

M. Nuncio, K. Satheesan, Asutosh Acharya, **Sourav Chatterjee**, M.P. Subeesh, R. Athulya. *A southerly wind event and precipitation in Ny Ålesund, Arctic*, **Journal of Atmospheric and Solar-Terrestrial Physics**, Volume 231,105869, <https://doi.org/10.1016/j.jastp.2022.105869> (2022)

Chatterjee S., Ravichandran, M., Murukesh, N., Raj, R. P. Johannessen, O. M. *A possible relation between Arctic sea ice and late season Indian Summer Monsoon Rainfall extremes*, **npj Clim. Atmos. Sci.** 4, 36,<https://doi.org/10.1038/s41612-021-00191-w> (2021)

Chatterjee, S., Raj, R. P., Bertino, L., Merlind, S. H., Murukesh, N., and Ravichandran, M.: *Combined influence of oceanic and atmospheric circulations on Greenland Sea Ice concentration*, **The Cryosphere**, <https://doi.org/10.5194/tc-2020-127>, (2021)

Belova, E., Voelger, P., Kirkwood, S., Hagelin, S., Lindskog, M., Körnich, H., **Chatterjee, S.**, and Satheesan, K. *Validation of wind measurements of two MST radars in northern Sweden and in Antarctica*, **Atmos. Meas. Tech.**, <https://doi.org/10.5194/amt-2020-405> (2021)

Belova, E., Kirkwood, S., Voelger, P., **Chatterjee, S.**, Satheesan, K., Hagelin, S., Lindskog, M., and Körnich, H.: *Validation of Aeolus winds using ground-based radars in Antarctica and in northern Sweden*. **Atmos. Meas. Tech.** <https://doi.org/10.5194/amt-2021-54> (2021)

Vidar S. Lien, Roshin P. Raj and **Sourav Chatterjee**. *Modelled sea-ice volume and area transport from the Arctic Ocean to the Nordic and Barents Seas*. CMEMS Ocean State Report-5; **Journal of Operational Oceanography** (2021)

Jawak, S.D.; Andersen, B.N.; Pohjola, V.A.; Godøy, Ø.; Hübner, C.; Jennings, I.; Ignatiuk, D.; Holmén, K.; Sivertsen, A.; Hann, R.; Tømmervik, H.; Kääb, A.; Błaszczyk, M.; Salzano, R.; Luks, B.; Høgda, K.A.; Storvold, R.; Nilsen, L.; Salvatori, R.; Krishnan, K.P.; **Chatterjee, S.**; Lorentzen, D.A.; Erlandsson, R.; Rune Lauknes, T.; Malnes, E.; Karlsen, S.R.; Enomoto, H.; Fjæraa, A.M.; Zhang, J.; Marty, S.; Nygård, K.O.; Lihavainen, H. *SIOS's Earth Observation (EO), Remote Sensing (RS), and Operational Activities in Response to COVID-19*. **Remote Sens.**, 13, 712. <https://doi.org/10.3390/rs13040712> (2021)

Acharya Asutosh, **Sourav Chatterjee**, M.P Subesh, Athulya Radhakrishnan, Murukesh Nuncio: *Observation of cloud base height and precipitation characteristics at a polar site Ny-Ålesund, Svalbard using ground-based remote sensing and model reanalysis*. **Remote Sens.**, 13(14), 2808; <https://doi.org/10.3390/rs13142808>. (2021)

Vidya, P.J.; Ravichandran, M.; Murtugudde, R.; Subeesh, MP.; **Chatterjee, S.**; Neetu, S. and Nuncio, M. *Increased cyclone destruction potential in the Southern Indian Ocean*, **Environ. Res. Lett.**, 16, 014027. <https://doi.org/10.1088/1748-9326/abceed> (2020)

Raj, R.P.; Andersen, O.B.; Johannessen, J.A.; Gutknecht, B.D.; **Chatterjee, S.**; Rose, S.K.; Bonaduce, A.; Horwath, M.; Rannald, H.; Richter, K.; Palanisamy, H.; Ludwigsen, C.A.; Bertino, L.; Ø. Nilsen, J.E.; Knudsen, P.; Hogg, A.; Cazenave, A.; Benveniste, J. *Arctic Sea Level Budget Assessment during the GRACE/Argo Time Period*. **Remote Sens.**, 12, 2837. <https://doi.org/10.3390/rs12172837>. (2020)

Raj, R. P., Halo, I., **Chatterjee, S.**, Belonenko, T., Bakhoday-Paskyabi, M., Bashmachnikov, I., et al. *Interaction between mesoscale eddies and the gyre circulation in the Lofoten Basin*. **Journal of Geophysical Research: Oceans**, 125, e2020JC016102. <https://doi.org/10.1029/2020JC016102> (2020)

Vidya, PJ; Ravichandran, M.; Subeesh, MP; **Chatterjee, Sourav**; Nuncio, M. *Global warming hiatus contributed weakening of the Mascarene High in the Southern Indian Ocean*, **Nature Scientific Reports** ,Vol. 10, Issue 1, 10.1038/s41598-020-59964-7, (2020)

M. Nuncio, **Sourav Chatterjee**, K. Satheesan, Sheeba Nettukandy Chenoli Subeesh M.P. *Temperature and precipitation during winter in NyÅlesund, Svalbard and possible tropical linkages*, **Tellus A: Dynamic Meteorology and Oceanography**, 72:1, 1-15, DOI: 10.1080/16000870.2020.1746604. (2020)

Raj, R. P., **Chatterjee, S.**, Bertino, L., Turiel, A., and Portabella, M.: *The Arctic Front and its variability in the Norwegian Sea*, **Ocean Sci.**, 15, 1729–1744, <https://doi.org/10.5194/os-15-1729-2019>, (2019)

Waliur Rahman, **Sourav Chatterjee**, Tariq Ezaz and Thamban Meloth. *Increased influence of ENSO on Antarctic temperature since the Industrial Era*. **Nature Scientific Reports**, volume 9, Article number: 6006 (2019)

Chatterjee, S., Raj, R. P., Bertino, L., Skagseth, Ø., Ravichandran, M., Johannessen, O. M. *Role of Greenland Sea gyre circulation on Atlantic Water temperature variability in the Fram Strait*. **Geophysical Research Letters**, 45, (2018)

Chatterjee, S., Nuncio, M. Satheesan, K. :*ENSO related SST anomalies and Relation with Surface Heat Fluxes over South Pacific and South Atlantic* .**Climate Dynamics**, Volume 49, Issue 1–2, pp 391–401, <https://doi.org/10.1007/s00382-016-3349-3> (2017)

Book Chapter

Sourav Chatterjee, Roshin P Raj, Antonio Bonaduce, Richard Davy. *Arctic Sea Level Change in Remote Sensing and New Generation Climate Models*. In *Advances in Remote Sensing Technology and the Three Poles* (eds Pandey et al.). Wiley, <https://doi.org/10.1002/9781119787754.ch28> (2022)

Conference/Symposium/Training

GODAE International Summer School on Operational Oceanography, 2-13 October, 2017, Mallorca, Spain

Invited talk at International Arctic Winter School, 2018, NCPOR, Goa, India

International interdisciplinary PhD and Post-Doc research school- Observing and Modelling the Arctic Environment- Climate processes, prediction and projection, 8-13th September, 2019, St. Petersburg, Russia

Arctic Change 2020: 7-10 Dec, 2020 Poster: Influence of Nordic Seas dynamics on the Atlantic Water propagation and its impacts on sea ice concentration

Arctic Science Summit Week: 19-26 March, 2021 Oral: Non-stationary relation between ENSO and SST in Barents Sea.

EGU General Assembly: 19-30 April, 2021 Oral: Influence of Nordic Seas dynamics on the Atlantic Water propagation and its impacts on sea ice concentration.

AGU Fall meeting : 13-17 Dec, 2021 Poster: Influence of Arctic sea ice on extreme rainfall events during Indian Summer Monsoon

CMIP6 Bootcamp on Arctic Processes, organized by CLIVAR/CliC Northern Oceans Region Panel, 11-21 October, 2022, Søminestationen, Denmark