

Dr. Anna Novikova

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annamsu17@gmail.com

Rethymno, Crete, Greece

EDUCATION

Lomonosov Moscow State University

Moscow, Russia

PhD in geography

Sep 2017 – June 2020

specialization: geomorphology and paleogeography

Topic: Morphodynamics of thermoabrasional coasts of the Kara Sea (based on remote sensing data)

MSc in geography

specialization: geomorphology and paleogeography

Sep 2015 – June 2017

- **GPA:** 4.86/5.00

- **Relevant courses:** remote sensing in geoscience, geospatial analysis, natural risks and forecasting

BSc in geography

specialization: geomorphology and paleogeography

Sep 2011 – June 2015

- **GPA:** 4.70/5.00

- **Relevant courses:** geoinformatics, cartography, topography, geoecology, environmental and applied geomorphology, coastal and marine geology and geomorphology, morphometric analysis and mathematical methods in geomorphology

WORK EXPERIENCE

Institute for Mediterranean Studies

Foundation for Research and Technology

Laboratory of Geophysical – Satellite Remote and Archaeo-environment

Postdoctoral researcher

Rethymno, Crete, Greece

May 2023 - present

Emiral Resources (Alnair Mineral Services DMCC)

GIS department

Leading specialist

Moscow, Russia

Nov 2021 – Oct 2022

TotalEnergies

Exploration & Production Department, Geoscience,

Ice Engineering Team (Permafrost Group)

Intern

Paris, France

Nov 2019 – Apr 2020

Lomonosov Moscow State University

Geography Faculty, Laboratory of Geoecology of the North

Researcher

Moscow, Russia

Oct 2019 – March 2023

SKILLS, ACTIVITIES & INTERESTS

Training:

Geomorphology, geology, cartography, geodesy (total station, DGPS, UAV), satellite imagery interpretation, geospatial mapping, GIS

Grants funding:

- 1) Sea coasts of the Russian Arctic: past, present, future, 2022-2025 (current project), Russian Science Foundation № 22-77-10031 (participate);
- 2) Permafrost Coastal Systems Network (PerCS-Net), 2019-2024 (current project), National Science Foundation AccelNet and ARCSS Programs № 1927553, USA (participate);
- 3) Russian Arctic sea level changing during the Late Quaternary: values, factors, mechanisms, 2019-2021, Russian Foundation for Basic Research № 20-35-70002 (participated);
- 4) Analysis of dynamics of thermoabrasional coasts of the Kara Sea based on remote sensing data, 2019-2021, Russian Foundation for Basic Research № 19-35-90116 (headed);
- 5) Relief, quaternary deposits and paleogeography of the Late Pleistocene – Holocene of Gydan peninsula, 2017-2020, Russian Foundation for Basic Research № 18-35-00562 (headed);
- 6) Thermoabrasion of sea coasts of the Russian Arctic, 2018-2021, Russian Foundation for Basic Research № 18-05-60300 (participated);
- 7) Ice and biogenic morpholythogenesis of the coasts of tidal Subarctic seas, 2013-2015, Russian Foundation for Basic Research № 13-05-00324 (participated)

Technical skills: MS Office, Corel DRAW, Adobe Photoshop, ArcGIS, QGIS, Agisoft Metashape, PCI Geomatica, Micromine, Python (Pandas, GeoPandas, Matplotlib, NumPy), Google Earth Engine

Languages: English (Upper Intermediate), French (Pre-Intermédiaire), Russian (Native)

PUBLICATIONS

Full papers:

- Belova, N.; Ermolov, A.; **Novikova, A.**; Ogorodov, S.; Stanilovskaya, Y. Dynamics of Low-Lying Sandy Coast of the Gydan Peninsula, Kara Sea, Russia, Based on Multi-Temporal Remote Sensing Data. *Remote Sensing*, 2023, vol. 15, no. 48, <https://doi.org/10.3390/rs15010048>
- **Novikova A.V.**, Vergun A.P., Zelenin E.A., Baranskaya A.V., Ogorodov S.A. Determining dynamics of the Kara Sea coasts using remote sensing and UAV data: A case study. *Russian Journal of Earth Sciences*, 2021, vol. 21, no. 3, article ES3004, <http://rjes.wdcb.ru/doi/2020ES000743-res.html>
- Baranskaya A., **Novikova A.**, Shabanova N., Belova N., Maznev S., Ogorodov S., Jones B. The role of thermal denudation in erosion of ice-rich permafrost coasts in an enclosed bay (Gulf of Kruzenstern, western Yamal, Russia). *Frontiers in Earth Science*, 2021, vol. 8, article 566227, <https://www.frontiersin.org/articles/10.3389/feart.2020.566227/full>
- Baranskaya A., **Novikova A.**, Shabanova N., Romanenko F., Ogorodov S. Late Quaternary and modern evolution of permafrost coasts at Belyi Island, Kara Sea. *Journal of Coastal Research*,

2020, vol. 95, no. 1, pp. 356-361, <https://bioone.org/journals/journal-of-coastal-research/volume-95/issue-sp1/SI95-069.1/Late-Quaternary-and-Modern-Evolution-of-Permafrost-Coasts-at-Beliy/10.2112/SI95-069.1.short>

- Belova N.G., **Novikova A.V.**, Günther F., Shabanova N.N. Spatiotemporal variability of coastal retreat rates at Western Yamal Peninsula, Russia, based on remotely sensed data. *Journal of Coastal Research*, 2020, no 95, pp. 367-37,1 <https://bioone.org/journals/journal-of-coastal-research/volume-95/issue-sp1/SI95-071.1/Spatiotemporal-Variability-of-Coastal-Retreat-Rates-at-Western-Yamal-Peninsula/10.2112/SI95-071.1.short>
- **Novikova A.**, Belova N., Baranskaya A., Aleksyutina D., Maslakov A., Zelenin E., Shabanova N., Ogorodov S. Dynamics of permafrost coasts of Baydaratskaya Bay (Kara Sea) based on multi-temporal remote sensing data. *Remote Sensing*, 2018, vol. 10, no. 1481, <https://www.mdpi.com/2072-4292/10/9/1481>
- Aleksyutina D.M., Shabanova N.N., Kokin O.V. Vergun A.P., **Novikova A.V.**, Ogorodov S.A. Monitoring and modelling issues of the thermoabrasive coastal dynamics. *IOP Conference Series: Earth and Environmental Science*, 2018, no. 193, p. 012003, <https://iopscience.iop.org/article/10.1088/1755-1315/193/1/012003/meta>
- Belova N.G., Shabanova N.N., Ogorodov S.A., Kamalov A.M., Kuznetsov D.E., Baranskaya A.V., **Novikova A.V.** Erosion of permafrost coasts of the Kara Sea near Kharasavey Cape, Western Yamal. *The Cryosphere of the Earth*, 2017, vol. 21, no. 6, pp. 85-96, http://www.izdatgeo.ru/pdf/earth_cryo/2017-6/73_eng.pdf

Proceedings of the conferences:

- Ogorodov S., Baranskaya A., Shabanova N., Belova N., Bogatova D., **Novikova A.**, Selyuzhenok V. Erosion of the Russian Arctic Coasts in Changing Environment. Proceedings of the 39th International Association for Hydro-Environment Engineering and Research (IAHR) World Congress, Singapore, 2022
- Ermolov A.A., **Novikova A.V.**, Belova N.G. Dynamics of low-lying accumulative coasts of western Gydan Peninsula in the area of gas development. Proceedings of the 26th International Conference on Port and Ocean Engineering under Arctic Conditions, Moscow, Russia, 2021, p. 017
- Baranskaya A.V., Belova N.G., Bogatova D.M., **Novikova A.V.**, Ogorodov S.A., Tanghua L., Shaw T.A., Horton B.P., Khan N.S. Relative sea level changes as a driver of coastal dynamics in the Russian Arctic. Proceedings of the 26th International Conference on Port and Ocean Engineering under Arctic Conditions, Moscow, Russia, 2021, p. 003
- **Novikova A.** Belova N., Baranskaya A., Maslakov A., Aleksyutina D., Shabanova N., Zelenin E., Ogorodov S. Dynamics of permafrost coasts of Baydaratskaya Bay (Kara Sea) based on multi-temporal remote sensing data. Proceedings of 15th International Circumpolar Remote Sensing Symposium, Potsdam, Germany, 2018, p. 21
- Aleksyutina D., **Novikova A.**, Baranskaya A., Shilova O., Ogorodov S. Using multi-temporal aerial and space imagery for coastal dynamics investigations at Kara and Pechora Seas, Russian Arctic. Conference Proceedings 18th International Multidisciplinary Scientific GeoConference SGEM, vol. 18, issue 3.2 Informatics, Geoinformatics and Remote Sensing. STEF92 Technology Ltd Sofia Bulgaria, 2018, pp. 265–272
- **Novikova A.**, Ogorodov S., Belova N., Vergun A. Arctic Coastal Dynamics in the Area of Oil and Gas Development based on Satellite Imagery (a Case of Baydaratskaya Bay, the Kara Sea). Proceedings of 5th European Conference on Permafrost, Chamonix, France, 2018, p.808