GESER DUGAROV, Ph.D.

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languages: English (advanced), Russian (native)

location: Novosibirsk, Russia

SUMMARY

Specialist in the field of multiwave seismic survey, engaged in research of seismic wave propagation theory. Holds a degree of a Doctor of Philosophy (Ph.D.) in Geophysics. Experienced in project management and science advising. Currently exploring Data Science area.

TECHNICAL SKILLS

Python, Matlab, Wolfram Mathematica (symbolic computation), Git.

WORK EXPERIENCE

Senior Researcher, X/2009 – current Trofimuk Institute of Petroleum Geology and Geophysics SB RAS (12 years)

Senior Researcher (IV/2019 – current)

Research planning (looking for new promising directions) and project management. Supervising research at undergraduate and postgraduate levels.

Achievements. Developed plugin for AVAZ inversion embedded in Petrel software (leading a team of 7 members). Successfully completed projects supported by the two main Russian science foundations. Graduate students: 1 MSc, 1 BSc.

Python, Matlab, Git, Wolfram Mathematica (symbolic computation).

Research Associate (II/2014 – IV/2019)

Experimental research of acoustic properties of hydrate-bearing samples. Data processing and analysis.

Achievements. Collected data on acoustic properties of hydrate-bearing samples that became the foundation for a series of publications (8 articles and 9 conference materials). Developed plugin for Q factor estimation from vertical seismic profiling data embedded in VSPLab software (property of IPGG SB RAS).

Research Assistant (X/2009 – II/2014)

Studying velocity and attenuation of compressional and shear waves in anisotropic media.

Achievements. PhD degree in Geophysics. Developed algorithm for estimation of effective parameters of fractured media from velocity and attenuation anisotropy data.

Engineer, part-time IX/2013 – V/2017

Nuclear Safety Institute RAS, Novosibirsk Branch

(4 years)

Software development for numerical modelling of flow and heat-exchange of sodium coolant in fast-neutron reactors (including coolant boiling).

Achievements. Developed automation testing system with modelling result visualization. Updated closure relationships for two-phase coolant flow leading to more robust numerical modelling. *C++*, *Python*, *SVN*.

EDUCATION

PhD, Geophysics, X/2009 – XII/2013

Trofimuk Institute of Petroleum Geology and Geophysics SB RAS

(4 years)

MSc, Computational and Applied Mathematics,

Novosibirsk State University

IX/2004 - VI/2009 (5 years)

PROJECTS

- II/2019 XII/2021 Fractured media modelling using synthetic samples printed on a 3D printer *Role*: head of the project. *Team size*: 4. Supported by RFBR, grant No. 19-05-00730.
- XII/2019 VIII/2021 AVAZ inversion of local object anisotropy parameters from 3D seismic data *Role*: **team leader**. *Team size*: 7. Customer: NTC NIS-Naftagas, Serbia.
- VII/2019 VI/2021 Acoustic properties and internal structure of hydrate-bearing coal samples *Role*: head of the project. *Team size*: 5. Supported by RSF, grant No. 19-77-00068.
- II/2017 XI/2018 Laboratory experiments on the formation of gas hydrates in coal samples *Role*: head of the project. *Team size*: 4. Supported by RFBR, grant No. 17-35-80023.

HONORS AND AWARDS

- "The best young researcher in Earth science organizations" from the Government of Novosibirsk (2019).
- Winner of the contest among young researchers with PhD degree in Earth sciences from the Council for grants of the president of the Russian Federation (2019).

PUBLICATIONS

Author and coauthor of more than 50 scientific publications. Full publication track record could be found on https://geserdugarov.github.io, also in WoS and Scopus databases.

- <u>Dugarov G.A.</u>, Duchkov A.A., and Manakov A.Yu. (2021) Acoustic properties of hydrate-bearing coal samples depending on temperature and water saturation type. *Geophysics*, 86(3), U31-U37.
- <u>Dugarov G.A.</u>, Duchkov A.A., Duchkov A.D., and Drobchik A.N. (2019) Laboratory validation of effective acoustic velocity models for samples bearing hydrates of different type. *Journal of Natural Gas Science and Engineering*, 63, 38-46.
- Usov E.V., Butov A.A., <u>Dugarov G.A.</u>, Kudasov I.G., Lezhnin S.I., Mosunova N.A., and Pribaturin N.A. (2017) System of closing relations of a two-fluid model for the HYDRA-IBRAE/LM/V1 code for calculation of sodium boiling in channels of power equipment. *Thermal Engineering*, 64(7), 504-510.

HOBBIES

- Going to the gym on a regular basis (since 2019).
- Reading self-improvement, business and economics books.

Last update: 01.09.2021

The latest version could be found on https://geserdugarov.github.io