Oleg Ovcharenko

CONTACT Information

+933 53 273 9032 Saudi Arabia +7 985 126 5361 Russia

oleg.ovcharenko@kaust.edu.sa

Reside in: KAUST, Thuwal, Saudi Arabia

Citizenship: Russian Federation

Marital status: married



RESEARCH INTERESTS EDUCATION Numerical modeling, inverse problems, machine learning, stress state reconstruction

KAUST

King Abdullah University of Science and Technologies, Thuwal, Saudi Arabia

PhD student at Seismic Modeling and Inversion group,

Feb 2016 - now

- Affiliated to Earth Science and Engineering department (ErSE) and Extreme Computing Research Center (ECRC)
- Advisor: Prof. Daniel Peter

Selected coursework: Introduction to HPC (AMCS312 by Prof. David Keyes), Technology Innovation and Entrepreneurship (EID210 by Gordon McConnell), Computational Geophysics (ErSE390C by Prof. Daniel Peter), Inverse Problems (ErSE213 by Prof. Ibrahim Hoteit)

Grade: 3.67/4.00

Paris VII, Diderot

Institut de Physique du Globe de Paris, Paris, France

M.Sc., Exploration geophysics,

Sep 2014 - Jun 2015

- Thesis topic: An accurate finite difference operator for synthetic seismogram calculation for 2D transversely isotropic elastic media with regular meshing
- Advisors: Prof. Nobuaki Fuji and Dr. Roland Martin

Selected coursework: advanced electromagnetic methods, rock physics, information theory and signal processing, seismic wave propagation, advanced numerical modelling, long wavelength velocity estimation, fine-scale elastic parameter estimation, quantitative seismology

Grade: 14.15/20.00 (grade Magna Cum Laude), Ranked #1 Master thesis

MSU

Moscow State University by Lomonosov, Moscow, Russia

M.Sc., Physics of the Earth,

Sept 2009 - Feb 2015

- Thesis topic: Analytical solutions of the task on a viscous flow in a lithosphere with the accounting of superficial exogenous processes and an isostasy
- Advisor: Dr. Yuriy L. Rebetskiy, Head of lab of tectonophysics at IPE RAS

Selected coursework: physical basics of seismology, geothermy, physical geology, methods of geomagnetic research, seismometry, Earth's magnetism, inverse problems of geophysics, physical basics of earthquake, historical geology, origin of the Solar system and the early evolution of the Earth, inner structure of the Earth by seismological data, gravimetry and geodesy, physical basics of earthquake prediction

Grade: 4.0/5.0

COMMUNICATION

SKILLS

Russian - native English - fluent French - intermediate

Programming

Languages

Python, Matlab, C/C++, Fortran

LIBRARIES AND Frameworks

PyTorch, Tensorflow, Scikit, Pandas, PETSc

Markup

LATEX, HTML, CSS

LANGUAGES

OTHER SOFTWARE Altium, COMSOL

Online Courses

Reservoir Geomechanics by Dr. Mark D. Zoback

Machine Learning by Andrew Ng

Microsoft: DAT203.1x Data Science Essentials

FIELD EXPERIENCE

Geophysicsl field training in Chambon la Foret with GPX of IPGP

Oct 2014

- Seismic data acquisition using industry geophones and software
- Final report: Green's Function Retrieval Using Active Interferometry

Geological-geophysical expedition to North Caucasus, IPE RAS Jun - Sept 2013

- Collecting rock samples
- Measuring tectonophysical features with geological compass

Research

Engineer

Jul 2013 - Jul 2014

EXPERIENCE

Laboratory of Tectonophysics,

The Schmidt Institute of Physics of the Earth of the Russian Academy of Sciences

(IPE RAS)

Supervisor: Dr. Yuriy L. Rebetskiy, Head of lab.

Journal **Publications** Rebetskiy, Yu., Ovcharenko, O., Savvichev, P. "Present stress field of the crust in South-West Europe and Mediterranean Sea." Bulletin of Kamchatka Regional Association "Educational-Scientific Center". Earth Sciences, No. 2(24), 2014.

Conference Talks

Oral report, Tectonophysical conference at IPE, Moscow Oct 2013

Tectonophysical reconstruction of stress field in crust of Western Europe by seismological data of EMMA database.

Oral report, Tectonophysical conference at IPE, Moscow Apr 2014 Analytical solution for viscous flows in the crust beneath caves and uplifts.

Oral report, EAGE 2017, Paris Variance-based salt body inversion.

June 2017

TEACHING EXPERIENCE **Tutor**Physics, math, informatics and chemistry for high-school

Work Experience MSU union comittee of students

2009 - 2013

2010 - 2016

Coordinator of Transport Card department

- Communicated with Moscow metropolitan
- \bullet Work planning, schedules etc.

Event manager

- Organized Bowling Cup for Physics Department at MSU
- Arranged meetings of students with outstanding individuals

References

Available upon request