



## Education matters



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Congratulations to all the students who won awards at AEGC 2018. They are:

- Tasman Gillfeather-Clark (Macquarie University, best student oral paper in the minerals stream for his presentation entitled 'Self-organising maps – a case study of Broken Hill')
- Natalie Debenham (University of Adelaide), best student oral paper in the energy stream for her presentation entitled 'The influence of reverse-reactivated normal faults on porosity and permeability in sandstones: a case study at Castle Cove, Otway Basin'
- Harrison Jones (Macquarie University), best student poster in the minerals stream His poster was entitled 'Geophysical signature of the southern Gurubang base metal occurrence in south eastern NSW'
- Victorien Paumard (University of Western Australia) and his co-authors; Julien Bourget, Benjamin Durot, Sébastien Lacaze and Tom Wilson, best student poster in the energy stream. Their poster was entitled 'Full-volume interpretation methods: applications for quantitative seismic stratigraphy and geomorphology of the Lower Barrow Group, Northwest Australia'
- Bibirabea Sedaghat (Curtin University), Ralf Schaa, Brett Harris, Andrew Pethick, Alex Costall, Jingming Duan and Wenping Jiang, best student poster in the near-surface and groundwater stream. Their poster was entitled 'Magnetotelluric, basin structure and hydrodynamics; south west of Western Australia'

Not only did these student collect framed certificates, they were also given a gold coin by the award sponsor, First Quantum Minerals.

## Introducing Marina Pervukhina: the new Chair of the ASEG Education Committee



Marina Pervukhina  
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Marina Pervukhina was born in the Urals, on the boundary between Europe and Asia. She obtained her BS and MS in physics and engineering from Moscow Institute of Physics and Technology (State University now), which is famous for the fact that two legendary Russian physicists Lev Landau and Pyotr Kapitsa were giving lectures there. Marina worked at the State Institute of Oceanography and then at the Nuclear Safety Institute of the Russian Academy of Science. Later her family moved to Japan where she got a research position at the Geological Survey of Japan. She was granted her PhD in geophysics in 2006 by Kyoto University

for her research in rock physics of seismogenic zones.

Marina joined CSIRO in 2007 and since that time she has been working on rock physics and petrophysical properties of seal and organic-rich shales. She joined the ASEG FedEx in 2017 as the Branch Representative and soon realised that the ASEG Education Committee needs to be collaborating with the branches closely and directly. She was very excited to be asked to lead the Education Committee. She believes that the Professional Development courses that ASEG promotes in Australia offer great opportunities to learn new skills that are equally valuable for both young professionals and for experienced geoscientists. She also sees these events as great networking occasions.

### Education courses planned for this year

This year the ASEG is planning to bring a couple of SEG courses to Australia. Professor Ilya Tsvankin gave a course on 'Seismic anisotropy: basic theory and applications in exploration and reservoir characterisation' in Canberra between the

5th and 6th of April. Dr Kurt Marfurt is coming to Australia in July with his DISC 'Seismic attributes as the framework for data integration throughout the oilfield life cycle'. In addition, the ASEG plans to promote EAGE education courses in Australia, since EAGE offers more than 60 courses in geophysics, geology, petrophysics, near-surface, engineering and training and development. These courses are sponsored and thus are generally more affordable for self-employed geoscientists and consultants. Finally, Marina believes that the educational courses should not necessarily be 'imported'. A number of famous geoscientists work and live in Australia. She is planning to promote their lectures and/or courses nationally and worldwide.

If you have any suggestions for an OzStep or OzLeap program in 2018–19 please contact Marina directly. OzStep is a light, short introductory type of workshop organised by your local Branch. OzLeap is more in-depth and may run over a couple of days. Marina would also like feedback on what skills you would like to develop, as the ASEG may be able to help organise an educational event for you.

## SEG short course presenter Professor Ilya Tsvankin: a specialist in seismic anisotropy

Professor Tsvankin is Co-Leader of the Center for Wave Phenomena at Colorado School of Mines. Professor Tsvankin is known for his research in seismic anisotropy, elastic wave propagation, and characterisation of fractured reservoirs. His monograph 'Seismic signatures and analysis of reflection data in anisotropic media' is comprehensive text covering both basic and applied aspects of seismic anisotropy. Professor Tsvankin has been teaching his popular two day SEG course 'Seismic anisotropy: basic theory and applications in exploration and reservoir characterisation', together with Dr Vladimir Grechka for many years. Professor Tsvankin taught this course in Canberra on the 5th and 6th of April this year.

In February and March, prior to giving the course in Canberra, Professor Tsvankin visited CSIRO and Curtin University in Perth.



*Professor Boris Gurevich (Curtin) (left), Dr Marina Pervukhina (CSIRO) (centre) and Professor Ilya Tsvankin (CSM) (right) in front of Australian Resources Research Centre in Perth.*

## Travel grant to the EGU for Alison Kelsey



*Alison Kelsey*

Alison Kelsey, PhD graduate of the University of Queensland School of Earth and Environmental Sciences, has been

awarded a \$3000 travel grant by the Australian Environmental Foundation. Alison will present her work in a paper at the annual meeting of the European Geosciences Union, in Vienna, during April 2018.

The AEF Board has awarded the grant from its Bob Carter Memorial Fund, a fund set up to commemorate the life and work of the late Professor Bob Carter, a world-renowned geologist and marine scientist who passed away in January 2016.

Alison's PhD thesis investigated and demonstrated an astronomical mechanism as the cause of cycles of natural climate change of around 1500 years in length. Her research was based on an analysis of the palaeoclimatic record of Fraser Island in Queensland and other Australian regional records. The memorial association with Bob Carter's work is apt;

Bob was variously Chairman of an Australian Research Grants panel and Chairman of the Department of Earth Sciences at James Cook University from 1998 to 2005 and a visiting research professor in geology and geophysics at the University of Adelaide from 2001 to 2005. Bob was well known as a 'climate contrarian' who in the fullness of time will be proven right, wrong, or some position in-between. He debated marine geology and climate issues in public with courtesy and objectivity – he would be advising the same approach by Alison Kelsey and all recent graduates.

A call for papers by the EGU for a special session on natural cycles in climate change brought about 12 papers on the subject (cycles from decadal to multi-millennial) of which Alison's contribution is but one. I look forward to sharing some perspectives from this set of papers, in the next issue of *Preview*.