Welcome

Welcome to the third edition of Geo-soundings for 2013. It has been a busy start to the year for our department with academic staff and senior students enthusiastically engaging in presenting and publishing their research work, which is summarised below. The majority of the work was presented at the ASEG & PESA 23rd International Geophysical Conference and Exhibition, which was held in Melbourne in August 2013.

We look forward to keeping our readers informed of our activities during 2013 and hope that the second half of the year ahead is rewarding and productive for all.

Special Announcement

The 3rd International Workshop on Rock Physics will be held in Perth in 2015

We are thrilled to announce that the 3rd International Workshop on Rock Physics (3IWRP) will be held in Perth in 2015. There were competing bids from Florence, Italy led by Stanford University and Houston, Texas led by Schlumberger but they were unsuccessful. Before the votes were cast, Dr Angus Best, the chair of 2IWRP, summarised that this is recognition of the fact that “Perth is currently a centre of excellence in rock physics research”.

Big congratulations to the WA rock physics researchers on this achievement. The support of Curtin University and CSIRO is also gratefully acknowledged. Now the hard work begins… Let’s make 3IWRP a success! More details will follow.

Journal Publications


Conference Publications


EUROPE 5th BIOT Conference on Poromechanics, Vienna, Austria, July 2013


Gurevich, B., 2013, *A system of periodically alternating solid and viscous fluid layers: an exactly solvable example of a Biot medium*.


23rd International Geophysical Conference and Exhibition, Melbourne, August 2013


Malovichko, L., and M. Urosevic, 2013, *CRS stack based seismic imaging – a case study from St Ives mining camp, Kambalda, Western Australia*.


Martin, R., and B. Harris, 2013, *High resolution seismic reflection for hydrogeology – What is the value?*


Sun, B., A. Bona, B. Zhou, A. King, C. Dupuis, and R. Pevzner, 2013, *Seismic while drilling*
experiment with diamond drilling at Brukunga, South Australia.

**Urosevic, M.** 2013, *What can seismic in hard rocks do for you?*

**Pethick, A., B. Harris, and K. Lam,** 2013, *Computing, brains and geophysics?*


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**Staff News**

*The Department Welcomes...*

Mrs Anna Podolska commenced on the 5th August 2013 and has taken up a Research Fellow position within the Department. Anna has significant expertise in electronics and sensors. After completing a degree in Electronic Engineering from Kiev, Ukraine she went on to complete a PhD at UWA investigating the uses of electronic sensors in biomedical applications. Since then she has worked at ARRC with CSIRO in applying physical sensors to geochemical applications. Anna will be working primarily on developing borehole sensors for geophysics in DETCRC Phase 2 and evaluating these sensors with the P2.2 team. In other research within the Department Anna will assist in the design and implementation of field experiments.

Miss Connie Kitzig commenced on the 5th August 2013 with the Department as a Research Fellow and will be with us until the end of the Phase 1 DETCRC research projects. Connie is an experienced geologist and has a Masters degree in Geology from Germany specialising in hard-rock structural geology. Since then she has worked with Rio Tinto (Hamersley Iron Ore) for over two years then briefly with CSIRO (ARRC) in petrology/mineralogy and other geochemical analyses. Connie brings some much needed geological expertise to our DETCRC Research team and will help with building geological models of IOCG deposits to assist with simulating, predicting, and interpreting seismic reflection data from such deposits. Connie will also further investigate the links between petrophysical responses and lithology by closer examination of the mineralogy and alteration of samples selected to represent lithological units.

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**Research Activities**

Curtin Open Day was held on Sunday 4th August and the good weather saw large crowds on campus. Exploration Geophysics had a display in the science marquee, the highlight being Andrew Squelch’s spherical projector, which projected geophysical data onto a globe. A big thank you to all those who helped on the day and of course to Dr Andrew Squelch for organising
the spherical projector. We would also like to thank the following staff members: Dominic Howman, Dr Andrew Squelch, Dr Anton Kepic and students Konstantin Tertyshnikov, Zenon Platritis, Petr Lebedev.

Upcoming Events

**SEG International Exposition and 83rd Annual Meeting**, 22\textsuperscript{nd}–27\textsuperscript{th} September, Houston Texas.

**7th Congress of the Balkan Geophysical Society**, 7\textsuperscript{th}–10\textsuperscript{th} October, Tirana, Albania.

**13th SAGA Biennial Conference**, 7\textsuperscript{th}–9\textsuperscript{th} October, South Africa.

**EAGE Workshop on Seismic Attenuation**, 28\textsuperscript{th}–30\textsuperscript{th} October, Singapore.

**CO2CRC Symposium**, 19\textsuperscript{th}–20\textsuperscript{th} November, Wrest Point, TAS.

**DETCRC Annual Conference, Uncovering the Future III**, 20\textsuperscript{th}–22\textsuperscript{nd} November, Hahndorf, SA.

**Curtin Reservoir Geophysics Consortium (CRGC) Annual Meeting**, 5\textsuperscript{th}–6\textsuperscript{th} December, Rottnest Island.

Past Events

**EUROPE 5th BIOT Conference on Poromechanics**, 10\textsuperscript{th}–12\textsuperscript{th} July, Vienna, Austria.

**Near Surface Geophysics Asia Pacific Conference**, 17\textsuperscript{th}–19\textsuperscript{th} July, Beijing, China.

**2nd International Workshop on Rock Physics**, 4\textsuperscript{th}–9\textsuperscript{th} August, Southampton, UK.

**ASEG & PESA 23rd International Geophysical Conference & Exhibition**, 11\textsuperscript{th}–14\textsuperscript{th} August, Melbourne.
Educational Software Grants and Programs
A big thank you to all our software vendors who provide us with the continuing support and software resources we need for our teaching and research programs.

ALT - WellCAD
CGG Veritas - Hampson Russell Software
CGG Veritas - Geovation Software
DHI Group - FEFLOW
Down Under Geosolutions - Insight
ESRI - ArcGIS
Fugro Jason Software
Geosoft - Oasis Montaj
GNS Science - Globe Claritas
Golden Software - Surfer and Grapher
IHS - Kingdom Software
Ikonscience - RokDoc
Intergraph ERDAS - ERMapper
Intrepid Geophysics - Geomodeller
ION - MESA Expert
Landmark Graphics Corporation
Mathworks - MatLAB
Mira Geoscience
OpendTect
Paradigm Software
Petrosys Software
Pitney Bowes - Encom, MapInfo and Discover
RadexPro Software
Sandmeier - ReflexW
Schlumberger - Petrel
Tesseral Technologies Software
WesternGeco - Vista and Omni