Welcome to the 4th edition of Geosoundings for 2010. During this very busy quarter for all department staff, 3 journal publications, 28 conference presentations and 6 public presentations were made.

We would also like to wish you all a MERRY CHRISTMAS and a Happy New Year and we look forward to sending you our newsletters at the start of a new decade!

**STAFF NEWS**

Dr Anton Kepic’s term as Head of Department ceases on the 31st December 2009. From 2010 onwards, Anton, as part of the Deep Exploration Technologies CRC will lead the Data Fusion program in CRCDeep. He has extensive experience working in the mineral and petroleum exploration industries. CRCDeep require major innovations to develop sensors that will work down-hole, and especially while the drill is operating i.e. real-time data. Innovations are also required in joint inversion to deal with the different spatial sampling inherent in seismic and MT data. Leadership of this group will keep Anton very busy for the next few years. He will still continue to be involved in teaching and research supervision in the Department of Exploration Geophysics. We acknowledge and thank Anton for his leadership of the Department over the past 4.5 years, which has proved to be a very productive and fruitful time.

We also congratulate Anton Kepic on his recent promotion to Associate Professor.

Professor Boris Gurevich will take over the reins as Head of Department on the 1st January 2010. Boris has initially been appointed to lead the Department for 2 years by the Director of WASM, Professor Paul Dunn. Boris is well known around the World as a leader in Rock Physics research, and is also the Director of the Curtin Reservoir Geophysics Consortium (CRGC). We look forward to his leadership of the Department over the coming years.

**RESEARCH HIGHLIGHTS & GRANTS**

**ARC Grant Success**
The Australian Research Council (ARC) grants were announced recently across a range of categories. These research grants are very prestigious and our congratulations go to Boris Gurevich and Maxim Lebedev for winning an ARC Discovery grant for their project “Seismic attenuation and dispersion in reservoir rocks: broad-band experiments versus theoretical modelling”. Co-authors for this project were Drs. DN Dewhurst and TM Mueller.


**AWARDS/HONOURS**

We congratulate Dr Florian J. Karpfinger on being awarded his PhD. Florian has recently commenced working in Boston with Schlumberger-Doll Research. On behalf of all members of the Department we offer our congratulations to Florian and his supervisory panel on this achievement.

Congratulations to Mr. David Linton Stannard, who has been selected as the 2009 winner of the ASEG Honours Student Night presentations held on the 4th November. His presentation title is listed under public presentations in this newsletter.

**JOURNAL PUBLICATION**


CONFERENCE PRESENTATIONS

Brajanovski, M., Gurevich, B., Mitric, M., Lokajicek, T., & D. Nadri, Stress induced anisotropy of sediments estimated from ultrasound measurements and cross-dipole sonic logging and crystallographic analysis of shales texture, Presented at the 10th Western Pacific Acoustics Conference (Wespac X 2009), 21-23 September 2009, Beijing, China.

Brajanovski, M., Gurevich, B., Mitric, M., Lokajicek, T., & D. Nadri, Stress induced anisotropy of sediments estimated from ultrasound measurements and cross-dipole sonic logging and crystallographic analysis of shales texture, Presented at the 10th Western Pacific Acoustics Conference (Wespac X 2009), 21-23 September 2009, Beijing, China.

Pervukhina, M., Gurevich, B., Dewhurst, D.N., & A.F. Siggins, Experimental verification of the physical nature of velocity-stress relationship for isotropic porous rocks.


Gurevich, B., Makarynska, D., & M. Pervukhina, Are penny-shaped cracks a good model for compliant porosity?

CO2CRC Research Symposium
30 Nov – 4 Dec 2009
Sunshine Coast, QLD

Oral presentations:

Urosevic, M., Kepic, A., Pevzner, R., Shulakova, V & Sharma, S., Injection of CO2 into a depleted gas reservoir - time lapse program and results.

Shulakova, V., Pevzner, R., Urosevic, M & Kepic, A., 3D time-lapse seismic data processing: A case study from Otway basin, Australia.


Poster presentations:

Lwin, M., An experimental investigation of the comparative effect of the adsorption of different gas species on the velocity effective-stress relationship of coal.


PUBLIC PRESENTATIONS

ASEG 2009 Student Night Talks
4 November
Citywest Function Centre, Perth

6 Honours/MSc students were chosen to present their work at the recent ASEG Student Night Talks, held on 4th November 2009. They were:

Alfuhaid, F.K., Vertical seismic profiling for recovery of nearwell hydrostratigraphy, Perth Basin, Western Australia.

Almaghloth, M.A., Velocity independent migration in curvelet domain.

Yavuz, I., Estimation of shear wave anisotropy from VSP data

Harris, B., Practical marine CSEM 3D inversion

Lebedev, M., Rock physics experiments at Curtin: an overview

Poster presentations:

Al-Jabri, Y., The properties of the near surface layers, Naylor Field, Otway

Lebedev, M., Fluid injection into rock: Direct observation by X-ray computer tomography.

Gurevich, B., Effect of fluid, stress and frequency on seismic and ultrasonic velocities in sandstones and carbonates

Goldoniuc, P., Experimental verification of the physical nature of velocity-stress relationship for isotropic porous rocks

De Paula, O., Estimation of elastic properties of rocks using nanoinindentation and digital images

Urosevic, M., Against all the odds; injection of CO2 into a depleted gas reservoir - can we monitor it?

Pevzner, R., Repeatability analysis of land time-lapse seismic data: CO2CRC Otway pilot project case study

Bóna, A., Wavefront curvature and imaging

Almaghloth, M.A., Velocity independent migration in curvelet domain

Yavuz, I., Estimation of shear wave anisotropy from VSP data

Asgharzade, M., Underground stress estimation using P-P and P-S time lapse seismic

Greenwood, A., Hydrophone VSP surveys, useable or not?

Hartley, B., Testing of the virtual source method by numerical and physical modelling

Lwin, M., The comparative effect of different gases on ultrasonic velocity in coal

Harris, B., Practical marine CSEM 3D inversion

Lebedev, M., Rock physics experiments at Curtin: an overview

Poster presentations:

Al-Jabri, Y., The properties of the near surface layers, Naylor Field, Otway

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GRADUATION DINNER

With 19 people attending, an enjoyable Graduation dinner was held at Zebras African Steakhouse on November 19th. We acknowledge the success of all our graduates who put in a lot of hard work throughout the year.

UPCOMING EVENTS

SPG INDIA
INT. CONF & EXPO ON PETROLEUM GEOPHYSICS
Hyderabad, India, 1-3 February 2010

EAGE/AAPG/SEG GEO 2010
Manama, Bahrain, 7-10 March

EDUCATION AND DEVELOPMENT CONFERENCE
Valencia, Spain, 8-10 March 2010

WISHING YOU PEACE, HOPE AND ALL THE JOYS OF THE SEASON.

MERRY CHRISTMAS
AND A
HAPPY NEW YEAR!