

# Geo-soundings

NEWSLETTER - MARCH 2003

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## ENROLMENTS

### TOTAL ENROLMENTS FOR 2003 ARE:

BSc (Geophysics) Undergraduates & Honours	32 + 12
Grad Diploma	1
Postgraduate Diploma	0
MSc (Geophysics) - Coursework	1
MSc (Geophysics) - Research	1
MSc (Geoscience Exploration) - Coursework	1
PhD	22

### 2002 GRADUATES WERE:

#### **Doctor of Philosophy**

Brett Harris  
Christopher Manuel

#### **Master of Science (by Research)**

Simon Kawagle

#### **Master of Science (by Coursework)**

Anousha Hashemi

#### **BSc (Geophysics) Honours**

Triegue Allen	Christopher Hudson
Tristan Allen	Gemma King
Luke Brown	Paul Korona
Barrett Cameron	Adam Kroll
Jamie Connell	Ryan Metcalfe
Reece Foster	Jared Townsend
Karen Gilgallon	Justin Vermeulen
Benn Hansen	

#### **BSc (Geophysics)**

Nigel Cantwell	Stephen Moore
Brendan Corscadden	Thoi Quoc Nguyen
Amanda Davies	Michael Salundi
Benjamin Hardy	Leigh Scoby-Smith
Matthew Hope	Andrew Watts
Daniel Howes	

#### **Bachelor of Science (General Degree)**

Kurt Chambers  
Benjamin Tredrea  
Michael Whitford

## CONFERENCES

Papers presented at the 6<sup>th</sup> SEGJ International Symposium held in Tokyo from 22-24 January were as follows:

John McDonald acted as Co-Chair representing the ASEG at the above Conference.

**Davies, E.B., Mercado, E.J., O'Neill, M.W., and McDonald, J.A.,** 2003, *Studies of a riverbed scour monitor system using both a pier-interior cased and an exterior borehole*: Proceedings of the 6<sup>th</sup> SEGJ International Symposium SEGJ/SEG/ASEG/EAGE/KSEG, 22-24 January, Tokyo, pp 394-397.

**Gurevich, B., Brajanovski, M., and Brown, L.,** 2003, *Theory for fluid substitution in porous fractured reservoirs*: Proceedings of the 6<sup>th</sup> SEGJ International Symposium SEGJ/SEG/ASEG/EAGE/KSEG, 22-24 January, Tokyo, pp 1-8.

**Luo, M., Evans, B.J., and McDonald, J.A.,** 2003, *The removal of radiation patterns – A layer-stripping scheme*: Proceedings of the 6<sup>th</sup> SEGJ International Symposium SEGJ/SEG/ASEG/EAGE/KSEG, 22-24 January, Tokyo, pp 178-185.

**McKenna, J., Gurevich, B., Urosevic, M., and Evans, B.,** 2003, *Estimating bulk and shear moduli for shallow saline aquifers undergoing CO<sub>2</sub> injection*: Proceedings of the 6<sup>th</sup> SEGJ International Symposium SEGJ/SEG/ASEG/EAGE/KSEG, 22-24 January, Tokyo, pp 490-497.

**Rosid, M., and Kepic, A.,** 2003, *Groundwater exploration via seismoelectric survey*: Proceedings of the 6<sup>th</sup> SEGJ International Symposium SEGJ/SEG/ASEG/EAGE/KSEG, 22-24 January, Tokyo, pp 348-353.

**Wang, X., and Dodds, K.,** 2003, *Viscoelastic wave modelling using a staggered high-order finite-difference in inhomogeneous media*: Proceedings of the 6<sup>th</sup> SEGJ International Symposium SEGJ/SEG/ASEG/EAGE/KSEG, 22-24 January, Tokyo, pp 218-225.

## CONFERENCES (continued)

Brian Evans and Boris Gurevich presented papers at the 7<sup>th</sup> **International Symposium on Recent Advances in Exploration Geophysics** held in Kyoto, Japan.

**Evans, B.J., 2003, Monitoring CO<sub>2</sub> migration using time-lapse seismic data:** Proceedings of the 7<sup>th</sup> International Symposium on Recent Advances in Exploration Geophysics in Kyoto (RAEG2003), Shiran Kaikan, Kyoto, Japan, 87-92.

**Gurevich, B., and Hansen, B., (2003), Evaluating the impact of fracture-induced anisotropy on reservoir rock property estimates made from seismic data:** Proceedings of the 7<sup>th</sup> International Symposium on Recent Advances in Exploration Geophysics in Kyoto (RAEG2003), Shiran Kaikan, Kyoto, Japan, 61-68.

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The following papers were presented at the 16<sup>th</sup> **Geophysical Conference & Exhibition** held in Adelaide from 16-19 February 2003 by Staff and Students from the Department of Exploration Geophysics:

Greg Street was the winner of the business card raffle.



Greg Street being presented with his prize by Karen Pittard

**Brajanovski\*, M., and Gurevich, B., 2003, Frequency dependent anisotropy of porous rocks with aligned fractures.**

**Shepherd\*, A., 2003, The effect of sea swell on seismic data.**

**Kepic\*, A., and Adams, B., 2003, 100% duty cycle TEM: Faster acquisition and less noise.**

**Urosevic\*, M., and Gerhardt, A., 2003, Using VSP data to evaluate the response of seismic attributes for reservoir characterisation.**

**Munday\*, T., Meyers, J., Rutherford, J., Green, A., and Macnae, J., 2003, The cause nickeliferous laterite deposits, Western Australia: A case study on the application of airborne geophysics, in targeting zones of supergene enrichment in a complex regolith setting.**

**Street\*, G., Parsons, S., Allen, D., and Hatch, M., 2003, Water supply channel investigations using resistivity.**

**Luo, M., and Evans\*, B., 2003, 3D fracture assessment using AV Az and a layer stripping approach.**

**Anderson-Mayes\*, A., and Street, G., 2003, A conceptual framework for interpretation of airborne geophysical data.**

**Gurevich\*, B., 2003, A new model for fluid substitution in fractured reservoirs.**

**Brown\*, L., and Gurevich, B., 2003, Experimental verification of the anisotropic Gassmann model for fluid substitution in fractured reservoirs.**

**Kepic\*, A., and Campbell, T., 2003, Geophysical monitoring tree root zones.**

**Vella\*, L., Evans, B., Urosevic, M., and Emerson, D., 2003, Three Springs Talc Mine: A new view on an old deposit.**

**Siggins\*, A.F., Dewhurst, D., and Gurevich, B., 2003, Velocity-effective stress laws and hysteresis in Carnarvon Basin sandstones.**

**McKenna\*, J., Gurevich, B., Urosevic, M., and Evans, B., 2003, Estimating elastic moduli for seismic history matching of CO<sub>2</sub> sequestration into saline aquifers.**

**Zhang\*, F., and Uren, N., 2003, Anisotropic semblance analysis and NMO corrections for long offset data.**

**Leslie, D.M., and Hartley\*, B.M., 2003, Reservoir monitoring with continuous acoustic measurements.**

**Kepic, A., and Howman\*, D., 2003, Locating pioneer graves with GPR.**

**Kim\*, M., Dunne, J., and Gurevich, B., 2003, Fluid and lithology prediction within a coal sequence using seismic attribute modelling and analysis (Gippsland Basin).**

The above papers were all published on CD ROM.

## PRIZES & AWARDS

**Mu Luo** has been offered a **Japan Society for the Promotion of Science Postdoctoral Fellowship** to commence at the University of Waseda in the Japanese 2003/04 fiscal year.

**Boris Gurevich** was presented with an award for the **Best Petroleum Geophysics Paper** at the recent ASEG Conference held in Adelaide in February.

### PESA Prizes

The Elwood Horstman Honours Prize for 2002 was awarded to **Benn Hansen**.

The Third year Geophysics Student Prize was awarded to **Thoi Quoc Nguyen**.

Well done Benn and Thoi.

## VISITORS

We welcome **Kachentra Neawsuparp** who will be visiting us for approximately 12 months. Kachen is currently a PhD student in the Department of Geology, Faculty of Science, at Chulalongkorn University in Bangkok, Thailand. Jayson Meyers has been appointed Kachen's Associate Supervisor.

### Other Brief Visits

Dr Dennis Cooke, Santos, South Australia.

Dr Punya Charusiri, Chulalongkorn University, Bangkok.

Mr Nick Klomp, Charles Sturt University, Victoria.

Saleh Al-Saleh, Saudi Arabia.

Dr John Bancroft, Consortium for Research in Elastic Wave Exploration Seismology (CREWES), University of Calgary.

Dr Don Lawton, University of Calgary, Canada.

Nugroho Dwi Hananto, Research Centre for Geotechnology, LIPI, Bandung, Indonesia.

Prof Sun Xudong, Dr Wang Zhen and Prof Zhang Laibin from University of Petroleum, Beijing.

## OTHER NEWS

The Division of Resources and Environment, headed by Prof Graham Lodwick, has now relocated to the Brodie Hall Building (formerly Rio Tinto) in Technology Park.