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La Fundación Humboldt mantiene contacto con los ex alumnos alrededor del mundo y promueve que exista comunicación académica entre ellos. La red de ex alumnos comprende más de 25 000 científicos y estudiantes de todas las disciplinas de más de 130 países.



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Palabras de los editores

Este es el último boletín del año 2011. Esperemos que los boletines hayan sido informativos y les damos gracias a los compañeros goalistas que han colaborado informándonos sobre los diferentes proyectos de cooperación técnica y académica en conjunto con el gobierno alemán. Espe-

remos que para el próximo año tengamos más información sobre otros proyectos que se están llevando a cabo entre Alemania y los países latinoamericanos. Además damos gracias al señor Oppermann de OPPtimal Exploration and Development Pty Ltd, a las doc-

toras Monika Lieb y Martina May de la Fundación Alexander von Humboldt y a nuestro compañero Prof. André Jasper que muy amablemente colaboraron con nosotros en este número del boletín.

Les deseamos a todos una Feliz Navidad y un próspero Año Nuevo.

Following Alexander von Humboldt's Footprints – Research Cooperations of the Alexander von Humboldt Foundation in Latin America

By Dr. Monika Lieb, Monika.Lieb@avh.de

The Alexander von Humboldt Foundation promotes international cultural dialogue and academic exchange. To this end, it grants more than 800 research fellowships and research awards annually. These allow scientists and scholars from all over the world to come to Germany to work on a research question they have chosen themselves together with a host and collaborative partner. 25,000 Humboldt alumni worldwide belong to the Foundation's network.

Among these Humboldtians, almost 840 are from

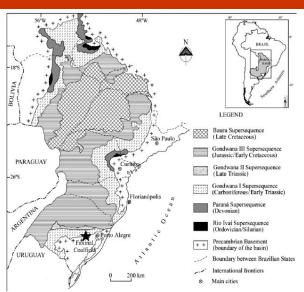
Latin America and the Caribbean with an emphasis on Argentina and Brazil (approx. 350 each) followed by Chile (almost 200) and Mexico (more than 100). With respect to the growing numbers of Humboldtians from this continent and the positive prognosis for the high scientific potential in many Latin American countries, the Alexander von Humboldt Foundation has expanded its organizational structure by a division "Central and South America" in September 2011 and has increased its efforts to strengthen as well as initiate new cooperations with Latin America. Within the German-Brazilian Year of Science, Technology and Innovation 2010/2011, agreements with universities and research institutions. Agreements with CAPES and CNPq in Brazil are on their way as a result of the ambitious government programme "Ciências sem Fronteiras". Similar cooperations with other countries such as Chile and Peru will surely follow.

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La Fundación Humboldt en Bonn

La Fundación Alexander von Humboldt fue fundada por el Ministerio de Educación e Investigación, Oficina Federal de Extranjería, Ministerio Federal de Cooperación Económica, así como varias otras organizaciones internacionales y nacionales entre ellas el DAAD.



Mapa geológico simplificado de la Cuenca del Paraná, Brasil y localización del campo de carbón Faxinal

Following Alexander von Humboldt's Footprints – Research Cooperations of the Alexander von Humboldt Foundation in Latin America (continuation)

Most of the Latin American Humboldtians have been sponsored by a **Humboldt Research Fellowship** or a **Georg Forster Research Fellowship** (focus on developmental aspects in developing and threshold countries) with the opportunity of a long-term research stay in Germany. The sponsorship not only contains the monthly stipend and travel costs but also family and mobility allowances, intensive language courses as well as a subsidy for research costs for the German institute. The annual meeting with the reception by the German Federal President and the study tour through Germany are usually commemorated as highlights. There are no quotas for specific countries or scientific subjects. Approx. 50 geo scientists from Latin America have been sponsored.

Once a Humboldtian, always a Humboldtian. Even after the stay in Germany

has come to an end, the Humboldt Foundation maintains close links with their alumni. The **alumni sponsorship** is tailored to the needs of every single Humboldtian, providing flexible support for the particular development and path in life as well as for cooperation with others. The following numbers illustrate the Humboldt activities in the region: 6 alumni associations and 12 Ambassador Scientists are actively involved in supporting the regional Humboldt network and promoting the programmes, 15 Humboldt Colloquium were organized by alumni in 2010 and 2011, and a Humboldt Colloquium took place in 2010 in Mexico for approx. 70 alumni from Central America.

For more information please refer to our web page <http://www.humboldt-foundation.de> or contact our main office at info@avh.de

Os paleoincêndios do Gondwana investigados em uma parceria entre Brasil e Alemanha.

Por el Prof. André Jasper, Universidad UNIVATES, ajasper@univates.br

Até recentemente, a ciência não aceitava que paleoincêndios vegetacionais fossem eventos comuns no Paleozóico Superior do Gondwana. Indicativos indiretos, como altos níveis de inertinitas nos carvões gondwânicos (> 50% em alguns casos), eram interpretados como de origem diversas daquela aceita para os carvões da Euro-América.

Todavia, em uma parceria entre o Centro Universitário UNIVATES (Lajeado, Brasil), o SenckenbergForschungsinstitut und Naturmuseum (Frankfurt, Alemanha) e a EberhardKarlsUniversitätTübingen (Tübingen, Alemanha), este conceito está mudando. Recentes trabalhos publicados pelos pesquisas



Legenda da Fotografia: Estudantes de graduação e pós-graduação participam das atividades de campo vinculadas ao projeto no Brasil.

continua...

Os paleoincêndios do Gondwana investigados em uma parceria entre Brasil e Alemanha (continua)

dores envolvidos no projeto demonstraram que carvões vegetais (charcoal em inglês – Holzkohle em alemão) são facilmente encontrados nos níveis sedimentares do Paleozóico Superior do Gondwana. Esse tipo de registro é aceito como indicativo direto da ocorrência de paleoincêndios vegetacionais, sendo que, assim, a ampla ocorrência dos mesmos está comprovada para o paleocontinente.

Os resultados dessa pesquisa conjunta já foram apresentados em eventos do GOAL, sendo que servem para elucidar questões ligadas às mudanças climáticas ocorridas no intervalo Permo-Triássico, as quais são caracterizadas por um aquecimento global causado, provavelmente, pelo aumento dos níveis de CO₂paleoatmosférico (pCO₂). Considerando que na atualidade humanidade se preocupa com os efeitos de um evento semelhante, de origem cíclica, porém agravado pela ação antrópica, os resultados advindos da pesquisa podem servir de base para inferências relativas ao comportamento climático da Terra em uma escala de médio e longo prazo.

A pesquisa tem o apoio financeiro da FAPERGS, da CAPES e do CNPq pelo lado Brasileiro e do Brasilien-Zentrum, do DAAD e do DFG pelo lado Alemão.

Mais informações acerca das publicações mais recentes podem ser acessadas em:

aumento dos níveis de CO₂paleoatmosférico (pCO₂). Considerando que na atualidade humanidade se preocupa com os efeitos de um evento semelhante, de origem cíclica, porém agravado pela ação antrópica, os resultados advindos da pesquisa podem servir de base para inferências relativas ao comportamento climático da Terra em uma escala de médio e longo prazo.

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Mais informações acerca das publicações mais recentes podem ser acessadas em:

<http://dx.doi.org/10.1016/j.palaeo.2011.04.022>

<http://dx.doi.org/10.1590/S0001-37652011000200009>

<http://dx.doi.org/10.2110/palo.2010.p10-012r>

Seismic visualisation of fracture networks - implications for the drilling and production of resources

By R. Oppermann, Ralf.Oppermann@iinet.net.au

Fault and fracture networks can have significant effects on drilling, mining and the safety of resource operations, and can also significantly impact reserve recovery and productivity.

Given the important role that fault and fracture networks play, various seismic processing techniques and software packages focused on 3D fault visualisation, auto-extraction and also semi-automated fault picking have been developed in recent years and are increasingly being applied in the resource industries. These automated fault detection techniques aim to support or replace manual fault mapping efforts, which are not only labour-intensive and time-consuming but also subjective.

Various attributes are in use to identify and enhance spatial discontinuities in seismic data. These seismic discontinuities most times represent fault surfaces, but can be also related to other geologic features (channel edges, hydrocarbon contacts etc.) or noise (acquisition/processing artifacts).

Automated fracture extraction is based on the physical measurement of spatial variation in amplitude, phase and/or frequency content of 3D seismic data, and is as such free of bias and interpretation. Fracture extraction therefore allows to separate measurement (i.e. fracture identification by using algorithms) from the interpretation of a measurement (i.e. fault mapping by traditional manual/visual reflector offset interpretation). Extraction furthermore has the advantage of being performed in true 3-dimensional space.

Automated fracture extraction techniques challenge widespread perceptions of what is seismically resolvable from 3D seismic data. Fault and fracture networks can not only be identified faster and more reliably, but also at a much higher resolution than achieved by other current seismic methods. With the increased resolution, much greater fault/fracture densities are identified than previously mapped or recognised, and a better understanding of structural geometries and fault populations can be gained.

continuation ...

Seismic visualisation of fracture networks - implications for the drilling and production of resources (continuation)

New workflows that integrate highest-resolution, fracture network extraction results with the detailed calibration and review of various drilling, mining and production data have shown to open up a new dimension in the understanding of subsurface resources. Fluid barriers, fluid conduits, fault-related mineralisations or drilling and mining hazards in the subsurface can be delineated, and groundbreaking insights into the 3D distribution of fracture networks, and how these can affect drilling and mining activities and the production of resources, can be gained.

Examples from Oil & Gas, Mining and Geothermal projects around the world demonstrate that these new techniques can provide a step-change in understanding drilling,

production and safety issues in existing wells or mines.

Furthermore, they can be utilised to optimise future resource activities and recoveries, and increase the safety of future operations.

More information about the publication:

Oppermann, R (2011) A revolution in seismic visualization of fault networks - implications for the drilling and production of resources. Gas & Oil Expo & Conference, Norte America 2011, GOEC11-130.

Cursos y eventos importantes

Conferencia en vulcanismo activo, Etiopía, 11-13 enero 2012. Información: <http://www.see.leeds.ac.uk/afar/new-afar/conference/conference.html>

DMG curso Técnicas experimentales de alta presión y aplicaciones en el interior de la tierra, Bayreuth, Alemania, 13-17 enero del 2012, <http://www.bgi.uni-bayreuth.de/ShortCourse2012/>

Conferencia internacional de profe-

sionales geólogos, Vancouver Canadá. Asociación de Geólogos, 22-24 enero del 2012. Información: <http://www.4ipgc.ca>.

Conferencia Internacional Kimberlita, Servicio Geológico de India, 6 al 11 febrero 2012. Información: <http://www.10ikcbangalore.com/index.html>.

Conferencia Internacional Maar: un congreso multidisciplinario en vulcanismo monogenético. Nueva Zelanda, IAVCEI-IAS, 20-24 febrero del 2012. Informa-

ción: <http://www.iavcei.org/IAVCEI.htm>

Conferencia Internacional en deformación, transferencia de fluidos y transferencia de masas en el antearco en márgenes convergentes, Italia, 25-31 marzo 2012. Información: <http://geosociety.org/penrose/12italy.htm>

Estamos en la página Web: www.goaldaad.com.ar

Cualquier pregunta o comentario respecto al Boletín por favor comuníquese con humberto7575@gmail.com o con nury.simfors2@comhem.se / nusi0453@gmail.com.

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