

GEOBULLETIN

OCTOBER 3RD 2014

*GeoBulletin is distributed weekly, by E-mail. Contributions are requested!
If you have a news item, a request, an announcement etc. email it to
geodept@geology.wisc.edu or leave it at the office, Room 225 by Noon on Wednesday.

WEEKS LECTURE – FALL 2014

Date	Speaker	Institution	Host
<h1 data-bbox="337 764 1317 877"><u>WEEKS LECTURE</u></h1> <p data-bbox="310 915 1354 961"><u><i>AAPG Distinguished Ethics Lecture, 2011-2013</i></u></p> <div data-bbox="272 1003 641 1549"></div> <p data-bbox="662 1003 927 1115">W.C. Rusty Riese <i>Adjunct Professor</i> <i>Rice University</i></p> <p data-bbox="695 1150 1354 1234">Oct 3rd, 2014, Friday, 3:30 PM, Room AB20 ~ Weeks Hall</p> <p data-bbox="678 1241 1370 1314">Oil Spills, Ethics, and Society: How they intersect and where the responsibilities reside</p> <p data-bbox="272 1352 1386 1661">Increasing global demand for energy has forced societies the world over to look for and use ever more diverse and expensive forms of energy to fuel their economies. Oil is a key part of this energy supply, particularly in the arena of transportation fuels. The corporations that supply energy have been pressed into increasingly challenging environments to meet public and governmental demands for inexpensive energy. Unfortunately, as we are reminded by the Gulf of Mexico Deepwater Horizon incident, accidents can happen, the environment can be damaged, and people can lose their lives when we operate at the leading edges of technology.</p> <p data-bbox="272 1692 1386 1839">When accidents occur, our responses typically tend to blame individuals, corporations, or regulators, rather than the public who's demand for cheap, readily available energy forces exploration in new, more challenging frontiers. Public opinions on this subject are shaped by a combination of <i>self-education</i>, fulminating politicians, and aggressive, sensationalist journalists.</p>			

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Exploring more than societal interests at a national level puts our pursuit of inexpensive energy into context. This context pits the competing interests of developing countries, which demand ever increasing shares of the world's resources, against broader, trans-national interests groups which are worried that continued dependence on energy-dense fossil fuels may cause runaway global warming and climate changes that may in turn destroy the earth's ecosystems.

Ultimate responsibilities for oil spills lie within this mix of competing demands and expectations – a mix far more complicated than most people are aware of or are willing to consider. All of us who consume energy have an ethical obligation to educate ourselves, and those around us, on the consequences of our demands for energy and for the environment.

10-Oct-14	Patrick Fulton	UC Santa Cruz	Tobin (F)
17-Oct-14	NONE (GSA)		
24-Oct-14	Tomochika Tokunaga	University of Tokyo	Wang/Hart
31-Oct-14	Jay Zambito	WGNHS	Carroll (F)
7-Nov-14	Jessi Meyer		Cardiff (F)
14-Nov-14	Francis Macdonald	Harvard University	Peters (F)
21-Nov-14			
5-Dec-14	Larry Band	UNC-Chapel Hill (GSA Birdsell-Dreiss Distinguished Lecturer)	Wang/Bahr
12-Dec-14	NONE (AGU)		

JOB OPENINGS:

- Senior Lecturer in Petroleum Geology - University College Dublin, Ireland.
- Post-doc opportunity available in the Rock Deformation Lab in Manchester
- PostDoc Position: Advanced Simulation of Coupled Earthquake & Tsunami Events - Ludwig-Maximilians-University Munich, Germany
- GNS Science - New Zealand, has a job opening for a Risk Specialist (engineer) to work in Lower Hutt, New Zealand
- Assistant Professor of Geology - Dept. of Earth, Planetary, and Space Sciences, UCLA
- Tenure-Track (assistant/associate/full) Professor in Marine Geoscience (Geochemistry) – Seoul National University School of Earth
- Assistant Professor Earth Systems History – College of Earth, Ocean, and Atmospheric Sciences at Oregon State University in Corvallis, Oregon

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- Assistant Professor Sedimentology – University of Alabama, Dept of Geological Sciences
- Assistant Professor Seismic Stratigraphy - University of Alabama, Dept of Geological Sciences
- Tenure-Track Faculty Positions Coastal & Marine Initiative: Geomorphology, Hydrology, Physical Oceanography and Air-Sea Interactions – Florida State University
- Assistant Professor Geophysics –University of Arizona, Dept of Geosciences

- PhD research in metamorphic petrology and tectonics in the Flin Flon-Snow Lake belt, Manitoba
- Earthquake Associate Position ~Swiss Re - US - NY - Armonk
- Postdoctoral position in volcano geodesy/model-data assimilation
- Signal Processing and Programming Engineer Internship Position
- Tenure-Track Assistant Professor - Geosciences ~ The University of Arkansas

JOB OPENINGS:

Senior Lecturer in Petroleum Geology - University College Dublin, Ireland

Permanent Position at UCD School of Geological Sciences, University College Dublin, Ireland.

Building upon existing strengths in petroleum geosciences, UCD School of Geological Sciences seeks to appoint a Senior Lecturer in Petroleum Geology to create additional academic capacity in this strategically important area. The appointed person will be expected to develop a dynamic research programme in collaboration with industry partners and will be an enthusiastic university teacher who can contribute to both BSc (Geology) and MSc (Petroleum Geoscience) degrees, as well as other cognate programmes such as the ME (Energy Systems). (S)he will complement our existing expertise in petroleum geoscience, which currently includes structural geology, clastic sedimentology, seismology, reservoir characterisation and modelling. The successful candidate will likely have particular expertise in petroleum exploration. However candidates with a wider range of cognate research interests are encouraged to apply.

Further details including a complete job description and guidelines on how to apply online for this appointment are available at: www.ucd.ie/hr/jobvacancies/. Online applications close at 17:00 BST on 10th October 2014. Informal enquiries may be made to the Head of School, Professor Stephen Daly (stephen.daly@ucd.ie).

Post-doc opportunity available in the Rock Deformation Lab in Manchester

We have a post-doc opportunity available in the Rock Deformation Lab in Manchester researching hydraulic fracturing in shales using state of the art X-ray tomographic imaging techniques. The project is in collaboration with the Manchester X-Ray imaging facility and the Diamond Light source. Further details can be found on the following sites:

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<https://www.jobs.manchester.ac.uk/displayjob.aspx?jobid=8633> <http://www.jobs.ac.uk/job/AJR814/research-associate/>
<http://www.earthworks-jobs.com/geoscience/man14101.html>

PostDoc Position: Advanced Simulation of Coupled Earthquake & Tsunami Events - Ludwig-Maximilians-University Munich, Germany,

The Department of Earth and Environmental Sciences (Geophysics Section, Seismology Group) at the Ludwig-Maximilians-University Munich, Germany, is seeking applications from enthusiastic young researchers for a postdoctoral fellowship in computational seismology (www.earthworks-jobs.com/geography/lmu14091.html).

The successful candidate will utilize and enhance SeisSol (seissol.geophysik.uni-muenchen.de), a software package for wave propagation and rupture dynamics simulation using an arbitrary high-order derivative discontinuous Galerkin (ADER-DG) discretization. SeisSol recently reached performance beyond the “magical” one petaflop/s mark and is a Gordon Bell prize finalist application this year.

The project objectives are to conduct realistic tsunamigenic earthquake scenario simulations to investigate the impact of earthquake source dynamics on tsunami generation and propagation. To this end the incorporation of realistic 3D subduction zone geometries, methodological optimization and extension of SeisSol as well as validation case studies will be conducted. A strong interest in numerical methods, seismic wave and tsunami propagation and motivation to work in a high-performance computing context are required. Previous experience in aforementioned fields is highly advantageous.

The position is part of the international, interdisciplinary project ASCETE-II (www.ascete.de) aiming to utilize an integrative simulation environment based on extremely efficient algorithmic concepts from computer science to understand under which conditions devastating tsunamis are generated. Interaction and collaboration with the project partners at the Technical University Munich, ETH Zurich and the University of Hamburg are a crucial part of the project.

The Geophysics section offers excellent working conditions and hosts several strongly numerical based projects. The Department has a powerful Linux-cluster and access to local supercomputer facilities (www.lrz-muenchen.de). The position is fully funded for 3 years, with the possibility of extension. We expect the candidate to start early 2015.

Requirements:

- PhD in Earth sciences, physics, mathematics, computer science or related fields
- Expertise in seismology or wave propagation phenomena, numerical modeling, highperformance computing, programming (e.g. Python, Fortran, MPI), 3D CAD and mesh generation (e.g. GoCAD, Cubit, ...) is beneficial
- Interest in earthquake source and tsunami processes
- Excellent written and spoken English skills
- Motivation to work independently in an international and interdisciplinary team

Review of applications will start immediately and close on October 31, 2014, with the possibility of extension until the position is filled. Interested candidates should send a CV, a statement of research interests (one page) and two reference letters or the contact details of two referees to:

Dr. Alice-Agnes Gabriel (gabriel@geophysik.lmu.de)

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LMU Munich is an equal opportunity employer. The University intends to enhance the diversity of its faculty members, and therefore strongly encourages applications from female candidates. Furthermore, disabled candidates with essentially equal qualifications will be given preference.

GNS Science - New Zealand, has a job opening for a Risk Specialist (engineer) to work in Lower Hutt, New Zealand.

The job advert and application process can be found here:

<https://careers.sciencenewzealand.org/jobdetails/ajid/mPys7/Risk-Specialist,8807.html>

Risk Specialist - GNS Science-Lower Hutt, New Zealand

New Zealand is a very active geological environment within which GNS Science (www.gns.cri.nz) is the leading supplier of research and consultancy services of earth science and geological hazard engineering.

The Risk and Society Department within the Natural Hazards Group of GNS Science is a 20 strong team of hazard and risk modellers, engineers, and social science researchers. Our work focuses on understanding societal risk and the development of tools and decision support systems to help communities understand, manage, and where practical, mitigate their risk from natural hazards.

We are seeking to appoint a risk specialist to enhance research capabilities in risk assessment and risk modelling. The successful applicant will be involved at the leading edge of the development and application of tools that enable better understanding of New Zealand's built environment and the risks imposed upon it by natural hazards. In particular, this will involve the integration of a suite of natural hazard models with a national inventory database and associated vulnerability database so as to establish the geographic distribution of risks on buildings and infrastructure within New Zealand, and within the Asia/Pacific region.

We are after a motivated and innovative person to join our high performance team. The successful applicant will have a post-graduate degree (Masters or PhD or equivalent), preferably with 3 years or more experience in engineering research or consultancy. An understanding of loss modelling, impact evaluation, and database management and application specifically in a risk evaluation environment is desirable. Commercial experience, statistics and demonstrable computer programming skills, together with an understanding of the NZ construction environment would be an advantage.

Postdoctoral Fellowships in the Earth, Environmental and Ocean Sciences - Lamont-Doherty Earth Observatory of Columbia University

Lamont-Doherty Earth Observatory of Columbia University invites applications for Postdoctoral fellowships in the fields of the Earth, environmental and ocean sciences. Candidates should have recently completed their Ph.D. or should expect to complete their degree requirements by September 2015.

Researchers at the Observatory work to understand the dynamics of the Earth's chemical, physical and biological systems, from the core to the upper atmosphere, including Earth's interactions with human society. Our scientists lead research in the fields of solid Earth dynamics; ocean, atmospheric and climate systems; cryospheric dynamics;

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paleoclimate; and biogeoscience.

The principal selection criteria for Fellows are scientific excellence and a clearly expressed plan to investigate problems at the forefront of Earth science. Applications from all related fields are welcomed.

Fellowships are supported institutionally for 24 months, include a \$5,000 research allowance, and carry an annual salary of \$60,000. Successful candidates will be encouraged to apply for external funding and may be eligible for further internal awards and positions. LDEO is especially interested in qualified candidates whose record of achievement will contribute to the diversity of the Observatory's scientific personnel.

The deadline for applications is December 1, 2014.

For more information, and to apply for the fellowship, please visit:

<http://www.ldeo.columbia.edu/postdoc>

Contact: The Office of the Director, Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY 10964

Tel: 845-365-8546 • Fax: 845-365-8162 • Email: director@ldeo.columbia.edu • Web: www.ldeo.columbia.edu

[Assistant Professor of Geology - Dept. of Earth, Planetary, and Space Sciences, UCLA](#)

The Department of Earth, Planetary and Space Sciences seeks an assistant professor in geology. We encourage applicants from all sub-disciplines of geology but preference may be given to candidates with experience on both sides of the cover/bedrock interface or who complement existing strengths in tectonics, paleoclimate, geochronology, and sedimentology. Applicants should have a Ph.D. or equivalent in geological sciences or a related field. Selection will begin on October 1, 2014. Please include a curriculum vitae, list of publications, statement of teaching and research, names and email addresses of three referees, electronic copies of up to five significant publications, and a cover letter addressing how your experience fits the job description. Electronic applications should be directed to the Chair of the Geology/Surface Processes Search Committee at <https://recruit.apo.ucla.edu/apply/JPF00331>. Inquiries may be directed to geologysurfaceprocesses_search@epss.ucla.edu.

The University of California is an Equal Opportunity/Affirmative Action Employer and has a commitment to enhance diversity in the geosciences at UCLA (see <https://faculty.diversity.ucla.edu>). Women and underrepresented minorities are encouraged to apply. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, age or protected veteran status. For the complete University of California nondiscrimination and affirmative action policy, please consult the UC Nondiscrimination and Affirmative Action Policy.

[Tenure-track \(assistant/associate/full\) Professor in Marine Geoscience \(Geochemistry\) – Seoul National University School of Earth](#)

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Seoul National University, School of Earth and Environmental Sciences is searching for one tenure-track (assistant/associate/full) professor in Marine Geoscience (Geochemistry). This position was created to promote diversity within the university. Competent applicants are encouraged to apply (September 23 - October 22, 2014). For more information, please contact Prof. Sang-Mook Lee (smlee@snu.ac.kr). (<http://cns.snu.ac.kr>).

Assistant Professor Earth Systems History – College of Earth, Ocean, and Atmospheric Sciences at Oregon State University in Corvallis, Oregon

Applications are invited by the College of Earth, Ocean, and Atmospheric Sciences at Oregon State University in Corvallis, Oregon. The position terms can be 9 month, 1.0 FTE (full time equivalent) faculty position, or 12-month position at 0.75 FTE. For either, grant funds can augment the university-provided salary. Conduct research and teach in the area of sedimentary geology, focusing on the use of pre-Quaternary sedimentary records as a basis for investigation of solid earth, oceanic, atmospheric, and surficial processes and interactions. Areas of expertise may include: paleoclimatology, past ocean and atmospheric chemistry and circulation, and tectonic and/or geodynamic influences on earth surface processes. Duties: teach undergraduate courses in earth history, stratigraphy and sedimentology, geology field methods, and graduate courses in area of specialty; establish an externally funded program of scholarly research; and college/university service. Requires a PhD geology, oceanography, or a closely related field; record of significant and innovative research that uses the sedimentary record to explore Earth Systems History; strong scholarly potential; potential for establishing a research program; potential to contribute to the teaching excellence in the undergrad/graduate programs; potential for mentoring; and proficiency in English. See job posting: <http://oregonstate.edu/jobs/#0012926>. For full consideration apply by 11/03/2014. Closing date: 12/15/2014.

Assistant Professor Sedimentology – University of Alabama, Dept of Geological Sciences

The Department of Geological Sciences at The University of Alabama invites applications for an Assistant Professor tenure-track faculty position in sedimentology beginning August 2015. Candidates must have a strong record of research and teaching, and must have received their Ph.D. in Geosciences at the time of appointment. The successful candidate will be expected to establish an externally-funded research program, attract and supervise graduate students, and teach undergraduate and graduate courses in sedimentology/stratigraphy, and introductory geology. The department has a broad range of isotopic, geochemical and modeling research facilities available, in addition to University-shared instrumentation at the Central Analytical Facility (www.caf.ua.edu<<http://www.caf.ua.edu>>). Details regarding existing research programs, equipment, facilities, and departmental activities are at www.geo.ua.edu<<http://www.geo.ua.edu>>. Questions should be directed to Dr. Delores Robinson (dmr@ua.edu<<mailto:dmr@ua.edu>>). Go to <http://facultyjobs.ua.edu/postings/35994> to electronically apply. When submitting an application, candidates must provide a cover letter, CV, research and teaching statements, and a list with the contact information for at least three referees. Review of applications will begin November 17, 2014. The University of Alabama is an Equal Opportunity Affirmative Action Employer and actively seeks diversity in its employees.

Assistant Professor Seismic Stratigraphy - University of Alabama, Dept of Geological Sciences

The Department of Geological Sciences at The University of Alabama invites applications for a tenure-track faculty position in seismic stratigraphy, beginning August 2015. The position will be filled at the Assistant Professor level.

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Candidates are invited to apply who have specialties within the broad field of seismic stratigraphy. Energy industry experience is a plus. It is expected that this position will enhance our existing faculty research areas in geophysics, sedimentology, basin analysis, and petroleum geology. Candidates must have a strong record of research and teaching, and must have received a Ph.D. in geology, geophysics, or a related field, at the time of appointment. The successful candidate will be expected to establish a vigorous, externally funded research program and attract and advise high-quality graduate students. Teaching responsibilities will include undergraduate and graduate courses in her/his specialty and introductory geology. The department has a broad range of geophysical, geochemical, and computational facilities, in addition to University shared facilities, including the Dauphin Island Sea Lab. Departmental software includes industry standards such as ProMAX, Petrel, IHS Kingdom, Geosoft, ArcGIS, and Matlab. Details regarding existing research programs, equipment and facilities, and departmental activities can be found at <http://www.geo.ua.edu><<http://www.geo.ua.edu/>>. Questions should be directed to Dr. Ibrahim Çemen (icemen@as.ua.edu<<mailto:icemen@as.ua.edu>>). Applicants should go to <http://facultyjobs.ua.edu/postings/36000> to electronically apply for this position. When submitting an application, candidates must provide a cover letter, CV, research and teaching statements, and a list with the contact information for at least three referees. Applications will be reviewed beginning November 17, 2014. The University of Alabama is an Equal Opportunity Affirmative Action Employer and actively seeks diversity in its employees.

Tenure-Track Faculty Positions Coastal & Marine Initiative: Geomorphology, Hydrology, Physical Oceanography and Air-Sea Interactions – Florida State University

Florida State University is continuing its major interdisciplinary initiative in the broadly defined area of Coastal & Marine Research. During the 2014-15 academic year the initiative will be recruiting up to five tenure-track faculty members; the search is open with respect to rank. We invite applications from researchers active in coastal system research in the areas of geomorphology, hydrology, physical oceanography and air-sea interactions. Candidates with research interests that bridge across disciplines, including life sciences, are encouraged to apply. The search seeks to complement the existing strengths in coastal and marine research in the Department of Earth, Ocean and Atmospheric Science, the Department of Biological Science and the FSU Coastal and Marine Laboratory. Faculty appointments will be in the Department of Earth, Ocean and Atmospheric Science and can be based at the Coastal and Marine Laboratory.

Successful candidates are expected to have a synergistic impact on existing coastal and marine research programs at the University and to contribute to teaching and mentoring at the undergraduate and graduate levels. Successful candidates will be offered highly competitive salaries and start-up packages, high quality research space and access to state-of-the-art instrumentation, computing and facilities in academic and interdisciplinary units.

Florida State University is classified as a Carnegie RU/VH (very high research activity) institution with a student population approaching 42,000. The University is located in Tallahassee, the capital of Florida, approximately 20 miles from the Gulf of Mexico coast. Residents have access to a broad range of cultural amenities afforded by the presence of three institutions of higher learning.

Applicants are asked to provide a single document in PDF format containing a letter of application, a curriculum vitae, a two (2) page narrative describing their research interests and plans, and a brief teaching statement. Applications must be sent electronically to coastal&marine2014P.search@fsu.edu. Applicants also should have three letters of recommendation sent to coastal&marine2014P.letters@fsu.edu. The closing date for applications is November 12, 2014.

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The Florida State University is committed to the diversity of its faculty, staff, and students, and to sustaining a work and learning environment that is inclusive. Women, minorities, and people with disabilities are encouraged to apply. FSU is an Equal Opportunity/Access/Affirmative Action Employer. As an agency of the State of Florida, all application materials and selection procedures are available for public review.

Assistant Professor Geophysics –University of Arizona, Dept of Geosciences

The Department of Geosciences at the University of Arizona seeks applications for a tenure track faculty position in geophysics in the broad areas of geodynamics, seismology and/or geodesy. Candidates must hold a PhD degree by the time of appointment. Postdoctoral or other postgraduate research experience is desirable. We anticipate hiring at the tenure-track assistant professor level. The appointee is expected to develop and maintain a vigorous, collaborative, externally funded research program and to teach at the undergraduate and graduate level. Screening of applications will begin November 20, 2014 and the search will continue until the position is filled. The University of Arizona is a committed Equal Opportunity/Affirmative Action Institution. Women, minorities, veterans and individuals with disabilities are encouraged to apply. Applicants must apply online at: <http://www.hr.arizona.edu/jobs>, job number 56514. Please include: a cover letter, including references, curriculum vita, and statements of research and teaching experience and interests.

PhD research in metamorphic petrology and tectonics in the Flin Flon-Snow Lake belt, Manitoba

Start: summer 2015

Supervisor and institution: Dave Pattison, University of Calgary <http://www.ucalgary.ca/pattison/>

Collaborating partner: Manitoba Geological Survey (MGS), in particular research scientists Chris Coueslan (Chris.Coueslan@gov.mb.ca) and Simon Gagne (Simon.Gagne@gov.mb.ca)

Project: Gaps exist in the understanding of the tectonothermal evolution of the Flin Flon-Snow Lake greenstone belt, a minerals-rich part of the Paleoproterozoic Trans-Hudson orogen in Saskatchewan and Manitoba. These include the distribution, nature and timing of prehnite-pumpellyite through granulite facies metamorphism and deformation, contact metamorphism associated with plutonic suites, and shear zone development in the context of the regional deformation/metamorphic history. Modern re-investigation and integration of previous metamorphic/tectonic studies will contribute to addressing these questions. An over-arching goal to which this project will contribute is a modern belt-scale, age-calibrated, metamorphic-tectonic synthesis of the Flin Flon-Snow Lake belt, ultimately linked to the same for the adjoining Thompson Nickel Belt. Specific geographic areas for the field component will be decided in consultation with members of the Manitoba Geological Survey

Activities: two seasons of field work (primary mapping, sample collecting); lab work; phase equilibrium modeling; various types of geochronology

Start date field work: Summer 2015

Start date at university: Fall 2015

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U Calgary support: Teaching assistantship plus graduate summer scholarship (~\$20K/yr total), research and travel expenses

MGS support: Field work for at least two summers (~June-August) starting 2015, comprising: field assistant provided by MGS, field vehicle, food, accommodation, standard field gear.

Expectations: In addition to producing a thesis, students will be expected to present their work orally/in poster form at relevant workshops and meetings during their program, produce annual Current Research reports for the Manitoba Geological Survey, and have published or submitted approximately three peer-reviewed papers upon graduation. Students may also be asked to contribute to applications for external research and travel support.

Requirements: MSc or strong BSc. Experience or education in field work, structural geology, petrography, metamorphic petrology. Above all, self motivation, a real interest in petrology and geology, and a desire to pose questions and solve problems independently. Candidates must also have a valid driver's licence.

Application materials: CV; summary of academic record (transcript); statement of interest (including qualifications, motivation); names and contact information for three references.

Deadline to apply: January 5, 2015

Contact details and link to web site for information about Pattison's research group:

Dr. David Pattison
Department of Geoscience
University of Calgary
2500 University Drive NW
Calgary, Alberta, CANADA T2N 1N4
Tel: 403.220.3263
Email: pattison@ucalgary.ca
Web: www.ucalgary.ca/pattison

Earthquake Associate Position -Swiss Re - US - NY - Armonk

Start date: Summer 2015

Swiss Re has a job opening for an earthquake specialist via our graduates@swissre program. The position is open for a recent (<2 years) masters or Ph.D. graduate in civil/structural engineering or geophysics, with broad knowledge and understanding of how to quantify earthquake hazard and risk. An ideal candidate will combine strong technical abilities and communication skills with an ability to work as part of a team. Further details about the company, job and graduates@swissre program are provided in the official link as follows:

https://entry.swissre.com/sap/bc/erecruiting/posting_apply?param=cG9zdF9pbmN0X2d1aWQ9M0M0OTkyRUQ4M0MwMUVENDhDRUVDNjIwRkJFRDhDODUmY2FuZl90eXBIPSZwb3N0aW5nX3RleHQ9eWVz&sap-client=100

Applicants are encouraged to apply as soon as possible, Please apply via the official channel, but I can try to answer specific questions via e-mail at [Iain Bailey@swissre.com](mailto:Iain_Bailey@swissre.com).

Postdoctoral position in volcano geodesy/model-data assimilation

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The Division of Marine Geology and Geophysics (MGG) at the Rosenstiel School of Marine and Atmospheric Science (RSMAS) at the University of Miami, Florida, invites applications for a postdoctoral position using near-real time and/or low-latency geodetic data of volcanoes. The objective of the project is to link geodynamical magma chamber evolution models with geodetic observations from GPS and InSAR into a model-data assimilation framework to assess the eruption potential of volcanoes exhibiting unrest. Objectives also include the assimilation of seismic data and of gas measurements, and the implementation of the finite element modeling approaches on scalable, high-performance computing platforms. This project is part of a broader effort to develop an operational methodology for eruption prediction using current and future SAR missions with short revisiting times.

This is a 2-year joint project with the University of Illinois, Urbana-Champaign, supported by NASA. For an overview about our research activities please visit <http://www.geodesy.miami.edu>. Review of applications begins Oct 5 2014 and will continue until the position is filled. Anticipated appointment date is in the first half of 2015. For more information on the position please contact and/or send your application, to Dr. Falk Amelung (famelung@rsmas.miami.edu). Complete applications will consist of a cover letter, a detailed curriculum vitae and complete contact information for at least three references

Signal Processing and Programming Engineer Internship Position

GroundMetrics is an early stage company offering advanced subsurface surveying and imaging technology, primarily to the oil and gas industry. We aim to be a game-changer in energy development. The company's unique technology and innovative approach unlock new applications and markets to help balance the world's energy portfolio.

<http://www.groundmetrics.com>

- Are you interested in gaining experience to build your resume, expand your network and learn about the early stages of designing and building signal processing code?
- Would you like to contribute to the future of resource conservation?
- Are you looking to work for a cutting edge technology company and a market leader in the oil and gas industry?

If you said yes to any of these questions then this may be the right opportunity for you. We are looking for someone with a great attitude who wants to work in a start-up company setting where you can truly make a difference. If this is you then please apply now!

Job Description:

Work within GroundMetrics' processing team to build processing tools. Process and analyze data from field surveys.

Responsibilities / Projects:

- Conceptualize software applications, select platforms, define functionality, wire-frame, develop, code and launch a wide range signal processing and quality control software projects
- Run, test, de-bug, update and continually improve software in regards to functionality, scope, and workflow efficiency
- Signal processing and data analysis
- Signal processing software development
- Strong analytical skills in the areas of digital filtering, spectral estimation, detection and estimation theory, linear algebra, and stochastic processes
- User interface design, prototype, and revision testing

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Desired Education and Work Experience:

- Currently enrolled in Bachelor or Master's Degree in Signal Processing, Electrical Engineering, Geophysics, Physics, Applied Mathematics, or Applied Statistics program.
- Experience in one or more of the following: MATLAB, C#, C++, Java, java_script
- Experience with mobile device programming (Android or IOS) is a plus
- Experience with a version control system such as GIT or Subversion is a plus

Qualifications:

- Proficient in English and good communication skills
- High level of attention to detail, thorough, positive, good communication
- Thrives in a fast-paced, highly-autonomous startup environment
- Legally authorized to work in the United States
- Real world experience (can be school project)

Commitment*:

- Part-time (available for approximately 10-20 hours per week)
- Flexible Schedule (i.e., fewer or possibly even zero hours during mid-terms and finals)
- Start date to be determined together

* Please be respectful of our time and do not apply if you do not meet these requirements.

Compensation – starts at \$10-20/hour, commensurate with degree and experience.

Application Requirements:

- Resume (1 page maximum)
- Letter of Interest (1 page maximum): Describe why you are interested in this position and indicate when you would be available to start, general availability including on average how many hours per week you would be available for the current quarter/semester, and expected graduation date.
- Undergraduate (and graduate transcripts as applicable), unofficial transcripts are acceptable
- Three References: At least one professor (preferably one from a current professor. At least one supervisor from a professional job (i.e., preferably non-academic, non-campus, non-work study, non-internship job and preferably a full-time job). One of your choice (preferably a second work supervisor).
- Letters of recommendation are welcome, but are not required.
- Return applications to careers@groundmetrics.com

GroundMetrics, Inc. is an equal opportunity employer. GroundMetrics, Inc. does not discriminate in employment on account of race, color, religion, national origin, citizenship status, ancestry, age, sex, sexual orientation, marital status, physical or mental disability, military status or unfavorable discharge from military service (for any applicable states, or based upon sexual orientation, gender identity and or gender expression).

Tenure-Track Assistant Professor - Geosciences - The University of Arkansas

Job Number: Y15928

Job Title: Tenure-Track Assistant Professor - Geosciences

Department: Geosciences

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Location: The University of Arkansas is a nationally competitive student-centered research university with a RU/VH Carnegie Classification. It is the flagship campus of the University of Arkansas system. The Department of Geosciences offers bachelors and masters degrees in geology and geography, and a doctoral degree in Geosciences. It also participates in two interdisciplinary graduate programs, Space and Planetary Sciences and Environmental Dynamics.

Fayetteville, nestled in the Ozarks of Northwest Arkansas, is part of a metropolitan area of about 500,000 people that retains its small, college-town atmosphere. The area is a rapidly growing metropolis spurred by opportunities with national companies including Wal-Mart, Tyson, Inc., and J.B. Hunt. The quality of life is high and it's a great place to work, play, and raise a family.

Posted Date: 09/24/ 2014 **Closing Date:** 11/03/2015 4:30 p.m.
(or until position filled)

Description: The Department of Geosciences, University of Arkansas-Fayetteville invites applications for a 9-month appointment as a tenure-track assistant professor with an anticipated start date of August 2015. We are seeking an outstanding individual in the broad areas of basin analysis and/or upper crustal/brittle structural geology. Additional knowledge of subsurface reservoir characterization techniques, such as 3D seismic interpretation, geochemistry, or digital well log analysis is considered favorable for this position. The specific research focus has some flexibility, depending upon comparative strengths of the applicants. Applicants must demonstrate ability and commitment to develop an independent externally funded research program as well as the potential for collaboration and synergism with ongoing research in the Department of Geosciences (<http://geosciences.uark.edu>). The successful applicant will be an integrated scholar capable of meeting departmental goals in independent research, advising graduate-research, and teaching--and will have a strong commitment to teaching at all levels. Teaching expectations include advanced courses in sedimentary basin analysis, upper division courses in the area of the applicant's expertise, and participation in the required summer field course in Montana. All Ph.D. requirements must be completed at the time of the appointment.

Where To Apply? Review of applications will begin November 4, 2015 and continue until the position is filled. Applicants should submit their curriculum vitae, brief statements of research and teaching interests, and the names, addresses, and contact information for at least three professional references. Electronic submission (preferred) to liner@uark.edu or

Dr. Christopher Liner
Basin/Structure Search Committee Chair
216 Ozark Hall
Fayetteville, AR 72701

The University of Arkansas is an Affirmative Action/EOE institution committed to achieving diversity in its faculty and staff. We encourage applications from all qualified candidates, especially individuals who contribute to diversity of our campus community. The University welcomes applications without regard to age, race, gender (including pregnancy), national origin, disability, religion, marital or parental status, protected veteran status, military service, genetic information, sexual orientation or gender identity. All applicant information is subject to public disclosure under the Arkansas Freedom of Information Act and persons must have proof of legal authority to work in the United States on the first day of employment.

[Postdoc position in Earth Materials and Hydrogeology at Utrecht University](#)

GEOBULLETIN

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Postdoctoral Researcher Sustainability (1.0 fte)

Utrecht University has recently established a new strategic research program on Sustainability, focusing on the themes of Water & Climate and Energy & Resources. In a key initiative within the program, the Faculties of Science (Departments of Chemistry and Physics & Astronomy) and Geosciences (Department of Earth Sciences) are linking their research in the Energy and Resources sector, addressing both upstream and downstream aspects of the resources supply chain. The Faculty of Geosciences is looking for a postdoctoral researcher with expertise in micro/nanoscale modelling, and who is familiar with or has an interest in imaging 3D pore networks in geo materials, solid catalysts, and nanomaterials in general. Applicants should have experience in the use of numerical simulations of fluid flow, solute transport and/or crystallization phenomena in micro/nanoporous media (e.g., using CFD packages such as OpenFOAM) within a high performance computing environment. The relevant expertise in parallel programming with a suitable high level programming language such as C, Fortran and/or C++ should also be demonstrable. The successful applicant will closely collaborate with another postdoctoral researcher (Faculty of Sciences) who performs related experimental/observational work and should have the ability to work as a member of a team. As a highly motivated scientist you can apply modelling to characterize 3D pore structures and processes in nanomaterials, with the aim of understanding fluid and gas migration, sorption and reaction processes. Materials of interest range from gas shales and coals to mineral catalysts, such as zeolites and clays, fault rocks and rare earth host rocks. Also of central interest are hybrid (organic/ inorganic) model systems structured on multiple length scales from the atomic/nano to granular , for applications in enhanced oil/gas recovery, gas separation, CO₂ capture and storage, water desalination, supercapacitor energy storage, solar energy harvesting (photo catalysis) and blue energy, for example. You are expected to bring expertise in one or more of these areas and to be able to bridge the molecular, to meso- and macroscopic (material property) length scales. You must be fluent in written and spoken English and able to communicate with coworkers in the two Faculties involved.

Qualifications

You should have (or be about to obtain) a PhD degree in Earth or materials sciences, physics/chemistry, applied mathematics, computational engineering or computer science, with experience pore network/properties modelling and upscaling, ideally with experience or interest in quantitative image analysis, 3D imaging techniques, such as FIB SEM, electron or X-ray tomography, confocal microscopy, spectroscopy, and/or experimental materials research.

Offer

The appointment will be for a period of two years extending up to 31 Dec 2016 at the latest. Possibilities for prolonging the position will be investigated but cannot be guaranteed. The gross monthly salary depends on experience (€2,427 and maximum €4,462 per month).

Employment conditions are based on the Collective Labor Agreement of the Dutch Universities. The salary is supplemented by a holiday bonus of 8% and an end of year bonus of 8,3% per year. We also offer a pension scheme, partially paid parental leave and flexible.

Employment conditions(see terms of employment). The research group will provide the candidate with necessary support on all aspects of the project.

About the organization

Utrecht University has great ambitions for its teaching quality and study success rates. This also applies to its clear research profiles which are centered around four themes: Sustainability, Life Sciences, Youth & Identity, and Institutions. Utrecht University plays a prominent role in our society and contributes to finding the answers to topical and future societal issues. Within the Faculty of Geosciences, the Department of Earth Sciences comprises a strong international staff guiding more than 100 PhD students and postdoctoral researchers, and includes a thriving Earth Materials cluster with a world class research profile. The academic programs of both faculties reflect recent developments in today's society.

Additional information

For informal enquiries, contact Chris Spiers:

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c.j.spiers@uu.nl.

Apply

Applications should include a statement of motivation, an overview of research interests and relevant experience, your curriculum vitae, and the names of at least two referees (with email addresses).

The application deadline is 01/11/2014

***** **HAVE A GREAT WEEKEND** *****