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 Monday.

**Weeks Lecture**

*Speaker list – Spring 2012*

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<td>Friday, Apr 27, 2012:</td>
<td>Tim Masterlark, U. Alabama (Host: Feigl)</td>
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<td>Friday, May 4, 2012:</td>
<td>Carl Jacobson, IOWA State (Host: Goodwin)</td>
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<td>Friday, May 11, 2012:</td>
<td>Margaret Fraiser, UW-Milwaukee (Host: Peters)</td>
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**2012 Graduate Student Research Symposium**

*April 12th and 13th, 2012*

The Department of Geoscience and the Geoscience Graduate Student Association (GGSA) presents its annual Graduate Student Research Symposium. This is a forum for showcasing graduate student research. Poster presentations will take place on Thursday, April 12th in the C.K. Leith Library of Geology and Geophysics. Refreshments will be provided. There will be two sessions—one from 5:00 pm-6:00 pm and the second from 6:00 pm-7:00 pm. Posters will remain up until 8:00 pm for your perusal. The committee will send out schedules of names/spaces for each poster session soon.
Talks will be presented from 1:00-3:30 pm Friday, April 13th in Weeks Hall, room 140. The symposium will highlight current graduate student research projects across a wide range of geologic sub-disciplines. All UW-Madison students, faculty, and staff are invited to attend. The public is also encouraged to attend.

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JOB OPENINGS:

- **University of Helsinki**: POST-DOCTORAL RESEARCHER
- **THE UNIVERSITY OF LIVERPOOL-GEOLOGY AND GEOPHYSICS-SCHOOL OF ENVIRONMENTAL SCIENCES** - Postdoctoral Research Associate and PhD
- The National Institute of Standards and Technology (NIST), Gaithersburg, MD, seeks applicants for a postdoctoral position.
- The Incorporated Research Institutions for Seismology (IRIS) Program for Array Seismic Studies of the Continental Lithosphere (PASSCAL) has an opening for a 2012 summer student intern at the IRIS PASSCAL Instrument Center at New Mexico Tech.
- Sessional Instructor in Geoscience -at the University of Calgary
- The Department of Geosciences at Mississippi State University invites applications for a full-time, tenure-track Assistant Professor position
- Academic posts in Geology at Liverpool University:
- The International Seismological Centre (ISC) requires a full-time *SEISMOLOGIST / ANALYST*
- Lecturer, Faculty of Science, University of Waterloo

**University of Helsinki: POST-DOCTORAL RESEARCHER** in the field of structural geology and metamorphic petrology for two years starting from the 1st of August 2012. The position is funded by the Finnish Academy funded MIDCRUST-research consortium. The consortium studies 3D evolution of thickened Precambrian continental crust and focuses on post-collisional processes. PDR is expected to take part in the ongoing field work in central and southern Finland. Applications should be at the Department of Geosciences and Geography by 16th of April.
For further information please see the web page [http://www.helsinki.fi/recruitment/index.html?id=54228](http://www.helsinki.fi/recruitment/index.html?id=54228)

**Contact**

Dr. Annakaisa Korja,
Department of Geosciences and Geography, POB 68
FI-00014 University of Helsinki
annakaisa.korja@helsinki.fi
tel: +358-9-191 51606

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**THE UNIVERSITY OF LIVERPOOL-GEOLOGY AND GEOPHYSICS-SCHOOL OF ENVIRONMENTAL SCIENCES** - Postdoctoral Research Associate and PhD
Postdoctoral Research Associate – 3 year position
PhD- 3.5 year position

Fluid flow in the Earth: the influence of dehydration reactions and stress

Postdoctoral Research Associate
We seek an innovative researcher to work with us on the mechanical, chemical and fluid flow effects of dehydration. You will run high-pressure, high-temperature rock deformation experiments to explore the evolution of porosity, permeability and reaction rate using gypsum and serpentinite. You will characterize the resulting microstructures to ascertain what controlled that evolution. The experimental constraints will be used to create a conceptual and numerical model for dehydration reactions in the Earth and their consequences, such as earthquake generation. You must have experience of experimental rock deformation. Familiarity with microstructural investigations, thermodynamics and/or numerical modeling is desirable.

PhD position
You will work on a related theme to the PDRA, but studying how mixed fluids (H2O-Ar, H2O-CO2 etc.) react with hydrous solids in the absence of deformation.

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The National Institute of Standards and Technology (NIST), Gaithersburg, MD, seeks applicants for a postdoctoral position. The successful candidate must have a Ph.D. and experience in radio/analytical chemistry, isotope dilution, a, b, g spectrometry, mass spectrometry and isotope geochemistry. Experience in radio/geo-chronometry is especially desirable. We are seeking a highly motivate post-doctoral fellow to develop methods for the characterization of nuclear forensics materials. This work would be in support of the reference materials for nuclear forensics initiative at the NIST supported by DHS. Potential projects include (1) development of chemical separation and measurement methods for the characterization of actinides, trace elements and isotopics of bulk material and particles in natural (e.g. sea sediment, Peruvian soil) and urban (e.g. composite glass material) matrices, (2) development of dissolution and extraction methods for Pu and U from various matrices (3) method development for characterization of Japanese fallout material. Furthermore, we will have projects involving U234/Th230 chronometry and preparation/verification of mixed isotope reference materials (Am 241/243).

TYPE OF WORK: Clean lab chemistry (including dissolution and column chemistry techniques), radiochemistry, a, b, g spectrometry, mass spectrometry, geochronology techniques, modeling.

REQUIREMENTS: US citizenship required. Although different backgrounds will be considered, familiarity with radio/analytical chemistry, isotope dilution techniques, and a, b, g and mass spectrometry are required. Preference will be given to candidates who have experience in radio/geo-chronometry techniques.

SALARY: US $53,000, plus benefits

TERM: 3 years

START DATE: Immediately

ENQUIRIES: Send a letter or email containing: (1) an explanation of your previous experience; (2) CV and letter of interest; (3) names and full contact addresses (email, phone, and fax) of three references; to Dr. Kenneth Inn (kenneth.inn@nist.gov) or Dr. Jacqueline Mann (jacqueline.mann@nist.gov).

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The Incorporated Research Institutions for Seismology (IRIS) Program for Array Seismic Studies of the Continental Lithosphere (PASSCAL) has an opening for a 2012 summer student intern at the IRIS PASSCAL Instrument Center at New Mexico Tech. The duration of the internship is flexible (up to three months). If scheduling allows, the intern will also take part in the late May IRIS Education and Outreach Orientation
Week at New Mexico Tech (www.iris.edu/hq/internship/about/orientation) in association with the IRIS Summer Undergraduate Internship program. We seek an advanced undergraduate or graduate student with seismic experiment design, field methods, seismograph electronics, and data processing interests. For general information, please visit www.passcal.nmt.edu, or contact PASSCAL Instrument Center Director Bruce Beaudoin (575-835-5070; bruce@passcal.nmt.edu). The internship includes a weekly stipend, living expenses, round-trip travel funds to Socorro, NM, and tuition support to cover NMT summer registration as a special graduate student. To apply, send a letter summarizing interests, college transcripts, and at least one appropriate letter of recommendation to: PASSCAL Summer Intern Committee, c/o Bruce Beaudoin, IRIS PASSCAL Instrument Center, New Mexico Tech, 100 East Rd., Socorro, NM 87801. For full consideration, materials must be received by April 6, 2012.

Details: The internship is designed for a student with a background in Earth Science who is interested in seismic field methods, electronics, and data processing. The IRIS/PASSCAL Instrument Center, funded by the National Science Foundation via the IRIS consortium, maintains and helps deploy large numbers portable seismographs (Reftek and Quanterra), broadband sensors (Streckheisen, Guralp, Nanometrics), portable telemetered networks, and high-resolution cable reflection systems (Geometrics) that are heavily utilized by the U.S. research community and international partners. The successful candidate will learn about the technology and maintenance of state-of-the-art seismic equipment, potentially assist in deployments in the US and overseas, and participate in seismic data processing under the direction of the Instrument Center Director and Staff. The intern will register as a special student for 6 credits of Directed Study (Geophysics 590) under the advisorship of PASSCAL Instrument Center P.I. and NMT Geophysics Professor Richard Aster. At least one week prior to the conclusion of the internship, the intern will submit a report not to exceed 15 pages summarizing tasks performed and observations/suggestions pertinent to PASSCAL program operations and future Education and Outreach efforts. The intern will be given a personal allowance of $575/week for tuition, fees, books, and living expenses. Transportation costs to and from New Mexico Tech will be reimbursed up to $3,500, as will room and board costs up to $1700.

For further information, please contact Bruce Beaudoin (see above) or Rick Aster (aster@ees.nmt.edu; 575-835-5924).

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University of Liverpool, Department of Geology and Geophysics. Seek applications for three posts as permanent, full time Lecturers / Senior Lecturers in Geology with a proven track record of international-level research. Successful applicants will have evidence that they can secure research funding and supervise research students. We welcome applications from all branches of Geology, including researchers in volcanology, igneous petrology and geohazards. You will be required to contribute to the teaching of BSc and MEarthSci undergraduate Geology programmes, including field courses. These positions are available from 1 September 2012, although start dates will be negotiable.

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Sessional Instructor in Geoscience -at the University of Calgary

The Department of Geoscience at the University of Calgary invites applications for a Sessional Instructor for the 2012-2013 academic year. The Department of Geoscience is committed to student engagement and creating an innovative, student-centered learning environment. Information about the Department and its programs can be found at www.ucalgary.ca/geoscience.

Duties: The successful candidate will be required to teach introductory level courses (first and second year courses of a four year undergraduate program) in the fields of mineralogy, igneous and metamorphic petrology, geochemistry and field geology. Specific courses within these fields will be assigned by the Department Head based on the teaching needs of the Department.
**Required and Desirable Qualifications:** Applicants should hold at least a M.Sc. in Geoscience or equivalent discipline with demonstrable ability to teach courses in the fields outlined in the duties section above at the undergraduate level. Candidates with a Ph.D. in Geoscience are preferred.

Field school instruction at University of Calgary requires a valid driver's license with a safe driving record and first aid certification. The applicant is expected to maintain appropriate certification in both of these areas throughout their appointment.

Preference will be given to candidates with a strong record of teaching experience and those that possess a broad knowledge of geology, particularly in the areas of field geology, petrology and geochemistry. Candidates must demonstrate a strong commitment to teaching and learning and a desire to support student learning inside and outside of the classroom.

**Type of Appointment:** This is a term-certain (limited term) position from August 1, 2012 to April 30, 2013 and is not renewable.

**Salary and Benefits:** Salary will be commensurate with the qualifications of the successful candidate. General guidelines to the remuneration for term-certain faculty appointments is provided in Schedule B of the collective bargaining agreement available at


Term-certain appointees are eligible for an additional 4% of salary in lieu of benefits and 4% of salary in lieu of vacation.

The Department of Geoscience may reimburse the successful candidate for reasonable relocation costs to Calgary.

**How to apply:** Applicants should submit a letter of application, a teaching dossier, a curriculum vitae and complete contact information for 3 referees to:

Dr. David Eaton, Head
Department of Geoscience
University of Calgary
2500 University Drive NW
T2N 1N4
E-mail: geojobs@ucalgary.ca

In accordance with Canadian immigration requirements, priority will be given to Canadian Citizens and Permanent Residents of Canada. The University of Calgary promotes employment equity and respects, appreciates and encourages diversity.

**Application Period:** The review of applications will begin on May 15, 2012 and will continue until a suitable candidate is selected. Short-listed candidates will be contacted for an interview.
teach *mineralogy* and *petrology*. The applicant should also be willing and able to teach introductory geology courses, online courses, graduate-level courses in his/her area of specialization, and/or lead student field trips. The successful applicant will be expected to develop courses in their area of expertise to support the department's Ph.D. program in Earth and Atmospheric Sciences. The successful candidate will be expected to be active in mentoring of graduate students through teaching, course development (both traditional and distance learning technology), and scholarly research activities (including publishing peer-reviewed manuscripts and acquiring external funding). He or she must be willing to collaborate with existing Faculty.

The department currently maintains a biogeochemistry laboratory, and sample preparation facilities that include: rock saws, lapidary, mineral separation, and thin section preparation equipment. The university supports a broad spectrum of state-of-the-art analytical facilities through the Institute for Imaging and Analytical Technologies (http://www.i2at.msstate.edu/index.php).

The Department of Geosciences currently has 16 tenure-track faculty members and 14 instructors; of those faculty members six are geologists. The department offers B.S. and M.S. degrees in geoscience and a Ph.D. degree in Earth and Atmospheric Science within five areas of emphasis: atmospheric sciences, geology, environmental geosciences, geography, and geospatial sciences. In addition to the on-campus programs, our distance learning programs enroll more than 700 undergraduate and graduate students. Further information about the Department of Geosciences can be found at http://www.msstate.edu/dept/geosciences/.

Candidates should submit a letter of application, curriculum vitae, copies of transcripts, and names and e-mail addresses of three people who may be contacted for letters of recommendation. Applicants must also complete a Personal Data Information Form (PARF # 4529) online at https://www.jobs.msstate.edu/.

Screening of applicants will begin April 30, 2012 and will continue until the position is filled. Mississippi State University is an Affirmative Action/Equal Opportunity Employer. PhiBeta Kappa members are encouraged to apply.

For submission or further information please contact:
Dr. Brenda L. Kirkland, Chair of the Search Committee Department of Geosciences Hilbun 108/P.O. Box 5448
Mississippi State, MS 39762
Phone: (662) 325-3915
Email: BLK39@msstate.edu
Website: http://www.msstate.edu/dept/geosciences/

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**Academic posts in Geology at Liverpool University:**

http://www.liv.ac.uk/working/job_vacancies/academic/A-579224.htm

Please note that there are likely to be at least one permanent and one temporary appointment in sedimentology- we particularly keen to make at least one appointment in clastic sedimentology. The Geology and Geophysics Group at Liverpool is going to be able to make a number of appointment over the next year or so: enabling us to reinforce areas of current strength and initiate new research areas. Current strengths include various aspects of sedimentary geochemistry, petroleum geology and palaeo-environmental research.

Isotope geochemists might like to note that we have 3 isotope ratio mass spectrometers with facilities for carbonates, organics and compound-specific isotope ratios and a WSCDRDS system for O and H in waters.
We teach 3 and 4 year degrees in Geology and Geology and Physical Geography - and have a vibrant PhD student population. Further information is available using the link above.

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The International Seismological Centre (ISC) requires a full-time *SEISMOLOGIST / ANALYST*

The International Seismological Centre (ISC) requires a full-time *Seismologist / Analyst* from June 1, 2012. Initially this post is for 2 years with a six-month probation period and a strong possibility of extension. The ISC values its experienced personnel and is always happy to retain qualified and dedicated staff.

The successful candidate will be expected to contribute on a daily basis to with one of the most important ISC duties – analysing the ISC Bulletin. Fulfilling these duties will involve the review of automatic hypocentre solutions, reported source parameters and station picks for approximately 50,000 earthquakes and explosions per year recorded by a network of 5,000 seismic stations worldwide. Communication with seismologists from one of the 140 networks contributing data to the ISC is also part of the job. This is clearly *not a research position* although from time to time the ISC analysts are involved in investigating ways to improve the ISC operations and services to the global seismological community with occasional opportunities to participate in international conferences.

A suitable candidate should have

· a degree in Geophysics or related fields
· experience in regional and global observational seismology, including waveform analysis
· a dedicated meticulous attitude to data
· a working knowledge of English and
· the ability to work as part of a friendly international team

Familiarity with LINUX as well as an understanding of other languages would be an advantage. The successful candidate will be given appropriate training and guidance that may last in excess of 6 months.

The starting salary will be approximately £26K per annum, consistent with UK Academic scales, with 6 weeks paid holiday. Overseas employees will be provided with some assistance in initial travel, accommodation and obtaining a permit to work in UK if required.

To apply, please send your CV with an accent on the above requirements and the names and e-mail addresses of two referees to the ISC Administration Officer admin@isc.ac.uk before May 5, 2012.

Lecturer, Faculty of Science, University of Waterloo

The Faculty of Science at the University of Waterloo (www.science.uwaterloo.ca) is seeking applications for a Lecturer to assume a mix of teaching and service duties, with the primary purpose of serving the China 2+2 program (www.china2plus2.uwaterloo.ca). The appointment is for three years and may be renewable, and those demonstrating outstanding performance may be considered for an ongoing appointment as a Continuing Lecturer.
The successful candidate will play a leading role in the Science China 2+2 program and will teach courses in his/her areas of expertise at Waterloo and potentially also at the partner universities in China. He/she may have the option to carry out research involving students.

The successful candidate should have a PhD in a Science discipline (preferably in Geology), have demonstrated or potential excellence in teaching at the undergraduate level, have excellent communication, interpersonal and leadership skills, have a good understanding of both the western and Chinese education systems, and be proficient in English and Mandarin Chinese. Research excellence will be considered an asset.

Applications will be accepted until April 30, 2012. A complete application must include a full curriculum vitae, a statement of teaching experience and philosophy, and the names and contact information of three to five referees.

The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native people and persons with disabilities. All qualified candidates are encouraged to apply; however Canadians and permanent residents will be given priority. Applications should be directed to T.B. McMahon, Dean, Faculty of Science, University of Waterloo, Waterloo, Ontario, N2L 3G1, Canada (email: mcmahon@uwaterloo.ca).

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