

# *GEOBULLETIN*

*APRIL 4, 2008*

**LECTURE SCHEDULE** ---- All lectures (unless otherwise noted) are held on Fridays at 3:30 PM in AB20 (Laudon Lecture Hall). Coffee & cookies are served in the lobby starting at 3:15 PM.

## **SPRING 2008 WEEKS LECTURE SCHEDULE**

**April 4** ----- Martin Saar ----- University of Minnesota -----

**Friday, April 4th, 3:30 p.m., AB20 Weeks Hall**

**How small-scale features affect large-scale fluid flow from magma to karst: Is the total greater than the sum of its parts?**

Abstract: Many, possibly most, systems in the Earth Sciences are heterogeneous, where small-scale features and simple processes combine and interact in complex ways, resulting in non-trivial, large-scale system behavior. Here, the terms "small" and "large" are used in a relative sense, meaning that the scale sizes are required to be significantly different to each other, while not necessarily small or large in absolute terms. While a wide range of geologic material properties show heterogeneities and scale effects, I will focus on those that affect bulk fluid flow and fluid flow through porous and/or fractured media. In particular, I will discuss the effect of particle and bubble interactions on viscosity and yield stress during suspension and magma flow and how void networks affect permeability development in porous media such as aquifers and some magmas. Such a "bottom-up" approach to investigating large-scale system behavior has the potential to allow insights into causalities of complex, feedback-prone systems. Such insights would then help interpret past, or predict future, large-scale system responses from data that are frequently collected at a much smaller scale and/or resolution. As an example, I will first discuss magma rheology and permeability and their effect on flow through volcanic conduits and volcanic eruption dynamics. The second example involves cave formation in carbonate systems and related groundwater flow dynamics.

**April 11** ----- Laurie Brown ---- University of Massachusetts ----

**April 18** ----- Christopher Kim – Chapman University

**April 25** ----- Board of Visitors' Meeting ---- date reserved ----

**May 2** ----- Clark Johnson – University of Wisconsin

**May 9** ----- Sean C. Solomon ----- DTM/Carnegie Institution of Washington -----

**May 15** ---- Brian Tucker

## **FALL 2008 WEEKS LECTURE SCHEDULE**

September 12 ----- Steve Holland --- University of Georgia

## **POSITION OPENINGS:**

**Subject: AZORES - Announcement of Postdoc Grants**

# *GEOBULLETIN*

*APRIL 4, 2008*

The Centre of Volcanology and Geological Risks Assessment (CVARG) from the Azores University, Azores islands, Portugal, through the Azores Regional Government, has an open call for 3 post-doctoral positions.

Job description: 3 postdoctoral grants in seismology/geodesy

Job dates: Starting date: June 1st 2008  
Ending date: 6 year contract

Job location: Centre of Volcanology and Geological Risks Assessment (CVARG), Azores University, Azores islands, Portugal

Open call until April 15th 2008

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## **Subject: Product Specialist Opportunity - IRIS**

The Incorporated Research Institutions for Seismology (IRIS) seeks a Product Specialist to assist in the production of scientific products at the IRIS Data Management Center (DMC) in Seattle. This is an excellent opportunity for a motivated self-starter to be a part of an international seismological data center and participate in the EarthScope project. Data products are divided into levels according to their community acceptance and degree of complexity with raw time-series and metadata representing level 0 products. Examples of higher-level products that the DMC might produce are ground motion animations, tomographic model displays and other results from the scientific community.

In collaboration with DMC staff and the user community, the selected applicant will perform the following duties:

- \* Identification and definition of new data products to be produced by the DMC including, to a limited degree, the software implementation to generate the products.
- \* Routine monitoring of the data product production and archiving systems.
- \* Assist with generation of reports that highlight activities as they relate to the DMC.

Successful applicants should have an understanding of modern seismological practices and data methods, ideally, experience in time series analysis.

# *GEOBULLETIN*

*APRIL 4, 2008*

A Masters degree or higher in geophysics would be a distinct advantage. Applicants should have experience with a Unix/Solaris/Mac OSX operating environment and have at least basic Unix shell programming capability; experience with Perl, or other programming languages would be advantageous. Familiarity with relational database systems and operational experience with large amounts of data are also desirable.

IRIS is a university consortium with more than 100 institutional members. IRIS is funded by the National Science Foundation to support facilities for research in seismology and the Earth Sciences. IRIS offers competitive compensation and an excellent benefits package. This position is related to data from the EarthScope project. For more information on IRIS and EarthScope consult <http://www.iris.edu> and <http://www.EarthScope.org>

Candidates should submit a letter of interest, resume highlighting pertinent work experience and the names and contact information for at least two references by March 15/April 30, 2008 to [job@iris.washington.edu](mailto:job@iris.washington.edu) with the subject line "Product Specialist Search". IRIS is an equal opportunity employer.

Visit [www.earthscope.org](http://www.earthscope.org) for more information.

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Opportunity for undergraduate research/employment at the Wisconsin Geological and Natural History Survey. The research is gathering and entering soft sediment geotechnical data for Wisconsin and entering it into a data base. This is working for Tom Hooyer ([tshooyer@wisc.edu](mailto:tshooyer@wisc.edu)) of the WGNHS. Here is the complete job description:

## **Duties of Position**

Gather and compile geotechnical data on unlithified sediment from Wisconsin. Enter geotechnical data into an existing Microsoft Access database.

The successful candidate should be able to independently conduct a literature review of engineering-related journals and reports to gather the appropriate information. Some familiarity with Microsoft Access is required.

This position is part time (8-20 hours per week) through June, 2008. Hourly pay is \$8 to \$12 per hour depending on experience. Please note that the work will primarily be at the Wisconsin Geological and Natural History Survey located about 1-2 miles west of campus at 3817 Mineral Point Road.

Please direct any questions to Tom Hooyer at [tshooyer@wisc.edu](mailto:tshooyer@wisc.edu).

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# *GEOBULLETIN*

*APRIL 4, 2008*

**TOWSON UNIVERSITY** has recently been awarded funding by the National Science Foundation to host a Research Experience for Undergraduates site in Urban Environmental Biogeochemistry beginning in Summer 2008. We are now accepting applications for this summer and request your help in recruiting qualified students for this program. Benefits include a \$4500 stipend, room and board, and travel expenses to and from Towson University. Students with backgrounds in Chemistry, Biology, Geology and Environmental Science are encouraged to apply.

Complete information and an online application form can be found at [www.towson.edu/chemistry/reu.asp](http://www.towson.edu/chemistry/reu.asp). The application deadline is April 25, 2008 and admissions will be made on a rolling basis.

If you or your students require any additional information, please feel free to contact me.

Ryan E. Casey, PhD  
Associate Professor of Chemistry  
Environmental Science and Studies Program Towson University 8000 York Rd.  
Towson, MD 21252-0001  
T: 410.704.3051  
F: 410.704.4265  
racasey@towson.edu

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**GEOSYNTEC CONSULTANTS** has Ongoing Needs for Engineers and Scientists  
We are seeking motivated, passionate, technical candidates to join us in our offices nationwide.

## **Our ideal candidate...**

- holds an advanced degree in engineering or science,•
- enjoys superior communication and interpersonal skills,•
- demonstrates academic achievement, and•
- preferably possesses the ability to become professionally licensed•

Since 1983, Geosyntec has provided clients with environmental, geotechnical, and hydrological engineering consulting and design services. We are an employee-owned company with offices throughout the United States and in Canada, Malaysia, and the United Kingdom. Nationally known for our practice leadership, client service, and innovation, our professionals continue to develop new technology applications and capabilities. Our applied research partnerships with leading universities, NASA, other Federal Agencies and others are producing better methods for all of our practice areas. We strive to provide a stimulating, progressive, and friendly work environment that will enable us to continue to recruit and retain great staff to provide the best possible service and value to our clients.

# *GEOBULLETIN*

*APRIL 4, 2008*

## **Our Practice Areas**

Environmental Engineering  
Geotechnical Engineering  
Water & Natural Resources  
Risk Assessment & Toxicology  
Site Investigation & Remediation  
Waste Management  
Construction Management Brownfields/Redevelopment

## **Engineering News-Record Rankings:**

**For 2007, Geosyntec is ranked:**

#18 in the Top  
Environmental Science Firms  
#8 in the Top  
Design Firms in Solid Waste  
#10 in the Top  
Design Firms in Chemical/Soil Remediation  
# 85 in the Top 200  
Environmental Firms

**Multiple openings available. Interested?**

[www.geosyntec.com](http://www.geosyntec.com)

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## **ASSISTANT PROFESSOR OF GEOLOGY:**

The University of Pittsburgh at Johnston invites applications for a tenure-stream, full-time position at the Assistant Professor level in the Department of Geology and Planetary Science. UPJ is a comprehensive four-year undergraduate campus of the University of Pittsburgh system, located 70 miles east of Pittsburgh on a beautiful 650-acre site in the Laurel Highlands of Pennsylvania.

Responsibilities:

Responsibilities include a 12-contact hour teaching load preterm and an active research program including supervision of undergraduate projects, along with departmental, divisional, and college-level service activities.

Qualifications include:

- Ph.,D in Geology/Geological Science by time of appointment
- College-level teaching experience appropriate to position
- Geological research experience in surficial processes/environmental geology
- Commitment to excellence in undergraduate teaching

# *GEOBULLETIN*

*APRIL 4, 2008*

- Strong interest in supervising field-oriented undergraduate research
- Excellent communication skills

Starting Date: August, 2008

Application Deadline: Review of applications will begin on April 11, 2008, and will continue until the position is filled..

Email enquiries can be sent to [beuthin@pitt.edu](mailto:beuthin@pitt.edu)

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## **POSTDOCTORAL POSITION IN ENVIRONMENTAL GEOCHEMISTRY, UNIVERSITY OF MANITOBA**

The Clayton H. Riddell Faculty of the Environment, Earth, and Resources at the University of Manitoba invites applications for a NSERC funded two year postdoctoral fellow position in environmental geochemistry. We are interested in individuals that have an interest in environmental uranium geochemistry, particularly related to remediation techniques to contain or treat uranium in uranium mine tailing sites and the receiving environment. The research will involve both laboratory and field studies on the adsorption of uranium on solid materials, and characterization of the uranium speciation. The position will also involve research mentoring of undergraduate and graduate students. Experience with analytical techniques such as ICP-MS, SEM, TEM, XRD, XPS or EXAFS is desirable but not necessary. Potential applicants are encouraged to contact Dr. Feiyue Wang ([wangf@ms.umanitoba.ca](mailto:wangf@ms.umanitoba.ca)) or Dr. Mostafa Fayek ([fayek@cc.umanitoba.ca](mailto:fayek@cc.umanitoba.ca)) for more information. Applications will be considered until position is filled. Send curriculum vitae including the names and contact information of three references to:

Dr. Mostafa Fayek  
Department of Geological Sciences  
University of Manitoba  
240 Wallace Bldg.  
Winnipeg, MB R3T 2N2  
Canada  
([fayek@cc.umanitoba.ca](mailto:fayek@cc.umanitoba.ca))

or

Dr. Feiyue Wang  
Dept. of Environment and Geography and Dept. of Chemistry  
University of Manitoba  
253 Wallace Bldg.

# GEOBULLETIN

APRIL 4, 2008

Winnipeg, MB R3T 2N2  
Canada  
(wangf@ms.umanitoba.ca)

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The Department of Geophysics at University of Chile, Santiago, is seeking applications for a POST-DOC position in solid-earth geophysics, for 1 year, extendible to 3 years. Applicants must have a PhD, and would conduct research in subduction processes using geophysical methods (seismology, geodynamics, or geodesy).

The starting date is flexible. Evaluation of applications will begin immediately and will continue until the position is filled.

Applicants should send curriculum vitae, including a publication list, a statement of research to: Denis Legrand, Solid Earth Group Coordinator: [denis@dgf.uchile.cl](mailto:denis@dgf.uchile.cl)

Interested candidates can learn more about the department faculty, research, and educational programs at [www.dgf.uchile.cl](http://www.dgf.uchile.cl)

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**THE GRADUATE PROGRAM OPPORTUNITIES (MA, MS, PHD) AT THE DEPT OF GEOSCIENCES AT WESTERN MICHIGAN UNIVERSITY, KALAMAZOO, MICHIGAN** and the six week hydrofield camp we conduct every summer. Please bring this to the attention of any of your current graduate and undergraduate students who might be interested in our graduate programs and our summer field program.

Mohamed Sultan, Chair      mohamed.sultan@wmich.edu  
Geosciences  
Western Michigan University  
Kalamazoo, MI 49008 (269) 387-5486 (269) 387-5513

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## **GRADUATE STUDENT PEER MENTOR AWARDS**

*Honor the graduate student in your department who takes the time to help others succeed in graduate school. Nominate them for the...*

- Write a letter detailing how this graduate student exhibited mentorship qualities.
- Include the email address for you and for the nominee.
- Submit the letter to MGN in 408 Bascom Hall, or email it to [MGN@bascom.wisc.edu](mailto:MGN@bascom.wisc.edu) by March 28th.

# *GEOBULLETIN*

*APRIL 4, 2008*

- Any student or staff can submit a nomination on behalf of a graduate student. Individuals or groups can combine to submit a single letter on behalf of a nominee.  
*Recipients will be honored at a reception on April 22th at 5pm at Memorial Union.*  
**Questions? Contact [mgn@bascom.wisc.edu](mailto:mgn@bascom.wisc.edu).**

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## **THE ROCKY MOUNTAIN ASSOCIATION OF GEOLOGISTS FOUNDATION**

has established the Veterans Memorial Scholarship to recognize all its veterans and to support graduate studies in geology. The Scholarship was initiated by the family and friends of Rocky Mountain region geologist and veteran Earl Griffith in his memory.

The Scholarship will be offered in the amount of \$2,000. The deadline for the receipt of applications is April 4, 2008.

Please check the following website:

<http://www.rmag.org/>

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## **CALIFORNIA STATE UNIVERSITY, LOS ANGELES DEPARTMENT OF GEOLOGICAL SCIENCES**

Position: One year Full-Time Temporary Faculty Position in Neotectonics/ Structural Geology  
Starting Date: September 2008  
Application Deadline: April 30, 2008

[http://www.calstatela.edu/univ/hrm/forms/appl\\_emp.xls](http://www.calstatela.edu/univ/hrm/forms/appl_emp.xls)

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## **DIFFERENTIATING BETWEEN CLIMATIC AND TECTONIC INFLUENCES IN THE KYRGYZ TIEN SHAN**

A 3 year PhD position is anticipated to be available (pending funding approval) for this project, based at the University of Potsdam, Germany. The goal of the research is to use apatite fission track and (U-Th-Sm)/He thermochronology to delineate the Cenozoic thermal history of the thrust-fault-bounded and glaciated ranges in the Kyrgyz Tien Shan. An independent detrital record will be obtained from the adjacent foreland basin, constrained by magnetic stratigraphy. The spatial and temporal distribution of exhumation will provide a the basis for differentiating between climatic

# *GEOBULLETIN*

*APRIL 4, 2008*

and tectonic driving forces.

A Diploma or a Masters degree in Geology is required for this position. Candidates with a strong 4 year Bachelors degree might be considered. A background in structural geology, thermochronology, sedimentology and/or basin analysis is desirable. Strong English language skills are necessary; familiarity with German or Russian would be helpful. The position will be paid a BATIlo/2 salary (about 1000 euro/month after taxes). To apply, please send your CV, an unofficial transcript, a statement of your research interests, and the names and contact details for three references. Applications should be sent by March 31st. Fieldwork is planned for late August - early September 2008.

Please send applications or enquiries by email to [sobel@rz.uni-potsdam.de](mailto:sobel@rz.uni-potsdam.de).

Note that I am presently in Melbourne, Australia, not in Germany!

More information about the department and the project supervisor are available at:

<http://www.geo.uni-potsdam.de/>

<http://www.geo.uni-potsdam.de/mitarbeiter/Sobel/sobel.html>

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Volcano Seismologist, U.S. Geological Survey

From: John W Ewert <[jjewert@usgs.gov](mailto:jjewert@usgs.gov)>

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## **THE USGS VOLCANO HAZARDS TEAM SEEKS A VOLCANO SEISMOLOGIST TO JOIN ITS VOLCANO DISASTER ASSISTANCE PROGRAM (VDAP).**

VDAP is a partnership program with USAID's Office of Foreign Disaster Assistance, which provides technical assistance in volcano monitoring science and technology to developing countries world-wide through crisis response, capacity building, and training. We seek an individual with a desire to contribute to the welfare of others by enhancing VDAP's program of international cooperation in volcano hazard mitigation. The successful candidate will conduct remote and on-site monitoring of volcanic seismicity, consult with and train foreign counterparts, install seismic networks, and conduct research in eruption forecasting. The position provides an opportunity to interpret seismicity that precedes and accompanies eruptions in varied geologic and tectonic settings, and thereby to advance understanding of the origin of volcanic earthquakes.

Investigations are designed to foster partnerships with international scientists, and with sensitivity to the publication and policy needs of colleagues and co-authors in other countries.

Qualifications are listed at <http://www.opm.gov/qualifications/SEC-IV/B/GS1300/1313.HTM>, and include experience in seismology and seismic monitoring, authorship of scientific publications, and contributions that have advanced the field of volcano seismology. Completion of a Ph.D. is

# *GEOBULLETIN*

*APRIL 4, 2008*

desirable, but not required. Work experience in foreign countries and foreign language skills are also desirable. The position is based at the Cascades Volcano Observatory in Vancouver, WA; however, routine travel to collaborate with colleagues at other USGS offices is expected. In addition, the position may include as much as several months/year of international travel.

Appointment is initially made for 24 months. It can be extended noncompetitively up to a 4 year limit. This is a Federal Civil Service position with full benefits.

Starting salary is either \$68,512 or \$81,472 depending on qualifications.

Applicants must apply on line at <http://www.usgs.gov/ohr/oars/> to be considered. If you have additional questions about the position, please contact John Ewert at 360-993-8912, Rose Wheeler at 650-329-4084 or Manuel Nathenson at 650-329-5292. Closing date for application is 24 March 2008.

Applicants must be United States citizens. The USGS is an equal opportunity employer. USGS Announcement WR-2008-0242.

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## **DSA VACANCY ANNOUNCEMENT**

Over the years we have developed an e-mail distribution list for vacancy announcements for our Distinguished Scholastic Achievement (DSA) appointments. This program was designed to assist in recruiting and attracting exceptional individuals into a variety of professional occupations. It was established to recruit professional employees at a level equivalent in pay of GS-07 for undergraduate applicants and at a level of pay equivalent to GS-09 through GS-12 for graduate level applicants. As these jobs are administered by ERDA and not OPM, students with a 3.5 GPA (in a 4.0 system) can apply directly to the location.

Patricia J. Winston  
HR Specialist  
Vicksburg, CPAC  
601-631-5862

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## **UNIVERSITY TEACHING AND RESEARCH POSITION (LIMITED TO 6 YEARS) [AKADEMISCHE RÄTIN/AKADEMISCHE RAT AUF ZEIT (A13)]**

The position is available from 2 April, 2008, initially for three years, and renewable for a further three years, subject to a positive evaluation. The successful candidate will have the benefits associated with the German Civil Service.

Candidates should have a doctorate, a good track record of publications and have broad interests in Geosciences with a focus on **Experimental and Analytical Mineralogy. Preference will be given to candidates with experience with transmission electron microscopy.**

The successful candidate will be expected to conduct independent research and also to apply to research funding bodies for grants to further support their work. Ideally, the candidate's research will lead to collaborative projects with other members of the Institute.

# *GEOBULLETIN*

*APRIL 4, 2008*

The successful candidate will be responsible for teaching B.Sc.- and M.Sc.-level courses 4 hours per week during the semester), as well as assisting in the supervision of postgraduate students.

The Institut für Mineralogie is well equipped with experimental facilities including piston-cylinder apparatus, hydrothermal high pressure and gas mixing furnaces. A multi-anvil high P,T apparatus will be installed during 2008. Atomic Force Microscopy is available for in situ studies of crystal growth and dissolution in aqueous solutions. Analytical facilities include electron microprobe, excimer laser ablation ICPMS, and ZEISS LIBRA energy-filtered TEM, JEOL 3010 TEM with GIF, and scanning electron microscopes. The Centre for Geochronology within the Institute has extensive mass spectrometry facilities. The Institute has close collaboration with the Institutes of Geology, Planetology and Physics through the Interdisciplinary Centre for Electron Microscopy and Microanalysis (ICEM). Further information about the facilities and research in the Institute can be found on the homepage :

<http://www.uni-muenster.de/Mineralogie/>

The University seeks to increase the proportion of female members in the faculty and therefore urges interested female candidates to apply. In case of equal qualifications, preference will be given to disabled applicants.

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## **SUMMER CREDIT FIELD-CAMP COURSE**

### **Colorado Ecosystem Field Studies**

**Earn 3 undergraduate credits in the foothills of the Rocky Mountains at the spectacular 1,200-acre, private Cal-Wood Education Center (near Jamestown, Colorado, 1 hr nw of Denver, 1/2 hr nw of Boulder) Course 1- June 8-21 Course 2- July 6-19, 2008**

**Explore & survey the concepts, components & conservation of the Colorado Front Range ecosystem:**

- \* Geology, geography & climatology**
- \* Ecology, wildlife & forestry**
- \* Field observation & research methods**
- \* Ecosystem restoration & stewardship**

#### **For course info contact:**

Steve Johnson, Course Director

steve@calwood.org

(303) 859-0173, [www.calwood.org](http://www.calwood.org)

**This outdoor course synthesizes and applies information learned in a classroom context to an authentic, complex, and dynamic environmental setting. Instruction is delivered with direct lecture, hands-on activities, guided exploration, field trips and guest speakers. Students base/tent-camp in a beautiful mountain location, hike daily, and participate in an intensive educational experience. Class size is limited to 16 students so register early to reserve a space.**

# *GEOBULLETIN*

*APRIL 4, 2008*

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## **POSTDOCTORAL ASSOCIATE IN SEISMOLOGY/CRUSTAL DEFORMATION STUDIES OF THE YELLOWSTONE**

**The University of Utah** invites applications for a postdoctoral associate in seismology and/or geodetic imaging and related dynamics of the Yellowstone hotspot and its active magmatic-tectonic system. We are interested in a scientist to conduct research on such topics as earthquake source properties, integration of EarthScope GPS and strainmeter data with earthquakes and volcanic manifestations, volcano-fault stress interactions, deformation modeling, geodynamics, etc. A rich source of data is available from the University of Utah Yellowstone seismic network as well data from the EarthScope PBO GPS and borehole strainmeter arrays and the USArray seismic network (see [www.uusatrg.utah.edu](http://www.uusatrg.utah.edu) and [www.seis.utah.edu](http://www.seis.utah.edu)).

Interaction with students, faculty and with the Yellowstone Volcano Observatory (a partnership of the Univ. of Utah, the USGS, and Yellowstone National Park) as well as participation in earthquake response and interpretation needs is expected. Computing experience with the Linux/ Unix operating system is required.

Applicants must have a Ph.D. in geophysics or closely related field. Appointment will be for one-year beginning summer 2008 or negotiable, with continuation contingent upon performance and funding. Applicants should email Robert B. Smith, [rbsmith@earth.utah.edu](mailto:rbsmith@earth.utah.edu)):

- 1) A letter of Application including a statement of research interests and how the applicant is qualified to conduct the above research,
- 2) A current curriculum vitae, and
- 3) Names and email addresses of three persons who can provide recommendations for the candidate. Applications will accept until the position is filled. The University of Utah is an equal opportunity Employer.

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## **Assistant Professorship in Analytical Geochemistry, Geological Sciences, Indiana University, Bloomington**

**THE DEPARTMENT OF GEOLOGICAL SCIENCES AT INDIANA UNIVERSITY, BLOOMINGTON**, invites applications for a tenure-track faculty appointment at the Assistant Professor level specializing in analytical geochemistry. We seek an individual whose research centers on the use of multi-collector ICPMS to address fundamental questions in the geosciences. Preference will be given to candidates whose interests complement existing departmental expertise in areas of isotopic and molecular geochemistry, hydrogeology and mineralogy, and strengthen and augment current research programs in studies of the evolution and history of Earth and/or planetary systems. Our instrumental laboratories for biogeochemistry and analytical and

# *GEOBULLETIN*

*APRIL 4, 2008*

environmental geochemistry will move to a new multidisciplinary science building scheduled for completion in June 2009, which has space designated for an ICP-MS facility. Review of applications will begin on March 1, 2008 and will continue until a suitable candidate is recruited.

All enquiries and applications should be addressed to Simon Brassell, Professor and Chair, Department of Geological Sciences, Indiana University, Bloomington, IN 47405-1403 (simon@indiana.edu).

Please submit a letter of application, and a complete vita, with contact information and the names of at least three referees. *Indiana University is an equal opportunity/affirmative action employer, and encourages applications from women and minority candidates.*

Edward M. Ripley Professor of Geochemistry Indiana University  
1005 East Tenth Street  
Bloomington, IN 47405  
Tel.:812-855-1196 Fax.:812-8557961

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## **SUMMER UNDERGRADUATE RESEARCH 2008**

Study the Earth's interior through Independent Research using state of the art facilities with Mineral Physics Institute

### Program

- Ten week at Stony Brook University working on projects in High-pressure research or Earth Sciences, June – August, 2008
- Design experiments, collect and interpret results
- Present finding to other Scientists

### Eligibility

- Undergraduate majoring in any of the physical sciences or mathematics
- 60 academic credits completed
- Interest in research career in Earth Sciences
- U.S. citizens or permanent resident

### To Apply

Go to [www.mpi.stonybrook.edu/summerscholars](http://www.mpi.stonybrook.edu/summerscholars)

Print and complete the application form

Include a personal statement, official transcript and two letters of recommendation

# *GEOBULLETIN*

## *APRIL 4, 2008*

Mail to

MPI REU Summer Program  
Mineral Physics Institute  
Stony Brook University  
Stony Brook, NY 11794 -2100

Evaluations begin upon receipt of application, Selections begin March 27, 2008

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**GEOTIMES**, the monthly news magazine of the earth sciences, is now accepting applications for its 2008 summer internship. We are looking for individuals, preferably with a geosciences background, who are interested in science writing and journalism. Based at the American Geological Institute in Alexandria, Va., the internship is 12 weeks long and includes a \$3,500 stipend. Please pass the attached flyer and information along to your students. The announcement is also posted on our Web site at <http://www.geotimes.org/>

We'd appreciate your help in getting the word out about this Opportunity. Please contact me with any questions.

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Meg Sever  
Managing Editor, Geotimes  
American Geological Institute  
email: [kms@agiweb.org](mailto:kms@agiweb.org)

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### **INSTRUMENTATION RESEARCH SCIENTIST**

#### **THE GEMOLOGICAL INSTITUTE OF AMERICA, LOCATED IN CARLSBAD,**

**CALIF.**, seeks an experienced Research Scientist to develop optical spectroscopic instruments, and to plan, organize, and conduct research for the purpose of resolving industry issues and developing intellectual properties for the educational mission of the Institute. Requirements: Ph.D or M.S. in physics, chemistry, material science, geology, or similar field; strong background in spectroscopy, developing optical spectrometers and related applications; computer skills. Knowledge of optical parts from the Ocean Optics and Avantes is a plus.

Primary duties include:

- Develops optical spectroscopic instrumentation (e.g., absorption and luminescence spectrometers in the UV-Vis-IR region); assists in other instrument maintenance.
- Contributes to developing applications where these spectrometers are used for studying and documenting gem materials (diamond, ruby, sapphire, pearls, and others)

# *GEOBULLETIN*

*APRIL 4, 2008*

- Assists in organizing research efforts to develop new identification criteria for natural, treated, and synthetic diamonds / colored stones / pearls; collects analytical data on gem materials and contributes to production
- Leads and/or contributes to research projects to include, but not limited to, sample preparation, data collection protocols, analysis, interpretation, and publication; input into annual research plans, department budgets, and status reports.
- Provides research presentations and publications to other GIA departments and to the general jewelry industry.

Please submit your resume and salary requirements by e-mail to [recruitergtl@gia.edu](mailto:recruitergtl@gia.edu). To learn more about GIA, visit our website at [www.gia.edu](http://www.gia.edu).

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## **MISASA INTERNATIONAL STUDENT INTERN PROGRAM 2008 AT THE INSTITUTE FOR STUDY OF THE EARTH'S INTERIOR (ISEI), OKAYAMA UNIVERSITY, MISASA, JAPAN**

1. Institute for Study of the Earth's Interior, Okayama University, Japan would like to invite applications for the 2008 International Student Intern Program

2. About the institute

The Institute for Study of the Earth's Interior (ISEI) is a leading institute equipped with state-of-the-art experimental and analytical facilities. Active researches are being conducted in the basic research areas of isotope and trace element geochemistry, high-resolution geochronology, and high-pressure and temperature materials science, aimed at understanding the origin, evolution and dynamics of the Earth. The institute is rapidly developing into an international research and educational center for solid earth sciences through the embarkation of the Center of Excellence for the 21st Century (COE-21) program (Program Leader: Professor Eizo Nakamura), sponsored by the Ministry of Culture, Sports, Science and Technology of Japan (MEXT) in 2003, and is now constantly the host of a significant number of leading and young collaborative researchers from worldwide. The institute is located in Misasa town, which is well known in Japan for its hot-spring spa. For more information about ISEI, please visit the following website:

<http://www.misasa.okayama-u.ac.jp/>

3. About the program

The annual Misasa International Student Intern Program for advanced undergraduate (3rd to 4th year) and master's course students has been planned to promote international collaborative research and education. During the intern program, students will work closely with ISEI faculty members and their research groups on currently active research projects at ISEI. Researches at ISEI generally fall into one of the following areas: (1) geochemistry and geochronology (including major and trace element, and isotope analyses of Earth and planetary materials using ICP-MS,

# *GEOBULLETIN*

*APRIL 4, 2008*

TIMS, SIMS, XRF, etc.), (2) high-pressure experimental mineral physics (including high-pressure experiments using multi-anvil press, and phase equilibrium, electrical conductivity, elasticity and rheological property measurements), and (3) crystal chemistry and magmalogy (including high-pressure experiments using DAC/multi-anvil press/IHPV, and NMR/Raman/IR spectroscopic measurements of minerals, melts and fluids, MD simulations and first-principles calculations). Perspective applicants are encouraged to contact ISEI faculty member(s) for more information. It is hoped that through this program, the participants will acquaint themselves with the state-of-the-art research facilities and activities at ISEI, and gain first-hand scientific research experience. At the conclusion of the program, an intern symposium will be held for all the participants to deliver oral presentations of their work (in English).

#### 4. Eligibility

The program is open to advanced undergraduate (3rd to 4th year) and master's course students majoring in earth sciences, physics, chemistry, materials sciences, or related fields, who have a strong interest in a career of scientific research. Students from either within or outside Japan, regardless of nationality, are eligible to apply. Communication skill in English is required.

#### 5. Date and Period:

July 1 (Tue)-August 8 (Fri), 2008

#### 6. Financial support

Travel expenses and daily allowance will be fully covered, and accommodation in the Misasa guesthouse will be provided.

#### 7. Number of participants: About 15

8. Application procedure: The application form for the internship program is available from the following website.

<http://www.misasa.okayama-u.ac.jp/MISIP/2008/index.html>

#### 9. Contact information: The application should be sent to:

Ms. Yoshiko Nakano, Secretary,  
Institute for Study of the Earth's Interior  
Okayama University

Misasa, Tottori, 682-0193 Japan

E-mail: [coe@misasa.okayama-u.ac.jp](mailto:coe@misasa.okayama-u.ac.jp)

For inquires concerning the intern program, please contact Dr. Xianyu Xue, the program coordinator ([xianyu@misasa.okayama-u.ac.jp](mailto:xianyu@misasa.okayama-u.ac.jp)) or any other ISEI faculty members.

TATSUKI TSUJIMORI [tatsukix@misasa.okayama-u.ac.jp](mailto:tatsukix@misasa.okayama-u.ac.jp)

ISEI, Okayama U.; Misasa, Tottori 682-0193, Japan

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*GEOBULLETIN*  
*APRIL 4, 2008*

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\*\*\*\*\* **HAVE A GREAT SPRING BREAK!** \*\*\*\*\*