
Natural Hazards Focus Group Newsletter (December, 2011)

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AGU NATURAL HAZARDS FOCUS GROUP NEWS No. 5 (December 2011)

1. Natural Hazards at 2011 AGU Fall Meeting in San Francisco

The 2011 Fall AGU meeting will feature 36 sessions on Natural Hazards: 11 sessions on Monday, 10 session on Tuesday, 8 session on Wednesday, and 7 sessions on Friday. In addition, the Natural Hazards Focus Group is an organizer of the Union session U23: Predicting Extreme Events in Natural and Socioeconomic Systems: State-of-the-Art and Emerging Possibilities (as a part of the ENHANS project, see below). The NH Program includes sessions on the 2011 Great East Japan earthquake and tsunami, and other great disasters of the XXI century; landslide science and forecasting; geophysical hazards and social-ecological vulnerabilities; interdisciplinary strategies for hazard mitigation and disaster management; droughts and early warning system; tsunami science, hazard, inundation, and risk assessments; monitoring disasters from ground and space; wildfires on landscapes; land-ocean-atmospheric processes and natural hazards; coupling from underground, surface, and to the ionosphere; observations, modeling, and economics of extreme events; remote sensing of natural hazards; and some others.

We are looking forward to see you in San Francisco!

2. Group Reception at the 2011 AGU Fall Meeting

The Natural Hazards Focus Group Reception
Tuesday, 6 December, 6:30-8:00 PM
Grand Ballroom C, the InterContinental San Francisco Hotel
888 Howard St, San Francisco
(415) 616-6500

The group reception is a good chance for all of us to meet and to develop personal bonds for future achievements. Please join us for the presentation of 2011 AGU Natural Hazards Focus Group Graduate Research Award to Dr. **Valentin Samuel Gischig** (ETH-Zurich). The award is given for his original research improving understanding of and mitigating hazards from unstable rock slope. The Award Committee has emphasized substantial creativity, originality, multidisciplinary and maturity of the work of the awardee and recognized his potential to become a leader in the field of natural hazards.



Dr. Valentin Gischig received his M.Sc. in Geophysics and Glaciology at ETH Zurich, Switzerland, in 2007. After a five month internship at Geoscience Australia, Canberra, in 2007, he started in a PhD project about rock slope instability in the Chair of Engineering Geology at ETH Zurich. He finished his PhD thesis in May 2011 with the thesis title: '*Kinematics and failure mechanisms of the Randa rock slope instability (Switzerland)*', which was supervised by Dr. Jeffrey R. Moore, Dr. Florian Amann, Dr. Keith F. Evans and Prof. Simon Loew. Since October 2011, Valentin Gischig is a postdoc in the Swiss Seismological Service, ETH Zurich, working in a project related to induced seismicity in enhanced geothermal systems. Dr. Gischig published 5 papers and submitted 4 papers for publications in peer-reviewed journals. He has been nominated for the AGU Natural Hazards Graduate Award by Prof. Simon Loew.

3. Executive Committee Business Meeting at the 2011 AGU Fall Meeting

http://www.agu.org/focus_group/NH/events/meetings/

The business meeting of the Executive Committee of the AGU Natural Hazards Focus Group will take place in San Francisco on **Wednesday, 7 December, 6:45–7:45AM**. The agenda topics will include among others:

- Inter- and trans-disciplinary science, and science for the benefit of humanity
- The membership of NH focus group
- Gilbert F. White Distinguished Lecture Award
- Natural Hazards FG Award for Graduate Research
- Outstanding Student Paper Awards
- Scientific Program of the 2011 AGU FM: success and challenges
- 2012 AOGS-AGU joint Meeting in Singapore
- 2012 IUGG Conference on Extreme Natural Hazards, Chapman University

4. Extreme Natural Hazards and Societal Implications (ENHANS) project

<http://www.enhans.org>

The AGU Natural Hazards Focus Group participates in the ENHANS Project since last year. The principal goals of the ENHANS project are (i) to improve understanding of critical phenomena associated with extreme natural events and to analyze impacts of the natural hazards on sustainable development of society; (ii) to promote studies on prediction of extreme events reducing predictive uncertainty and on natural hazards mitigation; to bring the issues into the political and economical policies; (iii) to disseminate knowledge and data on natural hazards for the advancement of research and education in general and especially in developing countries; and

(iv) to establish links and networks with the international organizations involved in research on extreme natural hazards and their societal implications setting up a consortium of experts of scientific unions of the International Council for Science involved in the project. The goals of ENHANS should be achieved via scientific meetings and open forums bringing together research experts, decision makers, and disaster management, insurance agency and mass media practitioners.

The NH Newsletter No. 4 highlighted several events which took place in 2010:

- *Union symposium "Natural Hazards and Disaster Risk in Latin America and the Caribbean", Foz do Iguassu, Brazil, 9-11 August 2010, and*
- *Union Symposium "Extreme Natural Events: Modeling, Prediction and Mitigation" at the 2010 AGU Fall meeting in San Francisco.*

Focus on Africa

The ENHANS International Workshop "Extreme Natural Hazards and Disaster Risk in Africa" (17-20 January 2011) provided an opportunity for the research community of the African countries and international experts to discuss and analyze major topics related to extreme natural events and disaster risk. The workshop served as a platform to establish links and networks between African experts with relevant international organizations.

The workshop was hosted by the Aon Benfield Natural Hazard Centre, University of Pretoria, and was based on invited presentations by African and foreign experts in natural hazards and disaster risk analysis. The Workshop's scientific program can be found at the workshop's web-page: <http://www.technoscene.co.za/hazardsws>.



The Pretoria Workshop's participants

The Workshop's participants adopted the recommendation to governments and funding institutions in cooperation with the relevant ICSU bodies, United Nations agencies and other international entities. The text of the recommendation can be found at the web:

http://www.enhans.org/showcasing/workshop_jan2011/Recomm_ENHANS_WS_Pretoria.pdf

Focus on the Middle East

The Special Session "Natural Hazards and Disaster Risks in the Middle East Region was held at the

Conference “GeoInformation for Disaster Management” on 3-8 May 2011 in Antalya, Turkey. The symposium provided an opportunity to discuss and to analyze major topics related to extreme natural events and disaster risk management in the Middle East region and to present new methodologies and technologies suitable for hazard and risk analysis and disaster management. Today a single extreme event in the Middle East may take up to a hundred thousand lives; result in material damage up to billions of dollars, and cause a chain reaction including economic depression, ecological catastrophe, significant damage to a megacity, and disruption of the military balance in the region. The session analyzed impacts of natural disasters on sustainable development of the region, discussed how the knowledge and data on natural hazards and disaster risks are disseminated for the advancement of research and education in the region, and tried to establish links and networks between regional experts with the broader international community dealing with natural hazards and risk analysis and with the relevant international and intergovernmental organizations.



Flooding in Jeddah, Saudi Arabia, 2011



Earthquake disaster in Jerusalem, 1927

Focus on Asia and the Pacific region

Two events were held at the XXV IUGG General Assembly in Melbourne (Australia) from 29 to 2 July 2011:

- ***Union Symposium "Grand Challenges in Natural Hazards Research and Risk Analysis"***
- ***Open Forum "Natural Hazards: From Risk to Opportunity by Partnership of Science and Society"***.

The science and society are the partners to cope with natural hazards by integrating natural and social sciences, engineering, economic and industrial activities, public administration, policy making etc. They can even convert risk to opportunity. The Symposium addressed major challenges in natural hazards research and risk analysis and presented the ways for their solutions.

Open Forum “Natural Hazards: From Risk to Opportunity by Partnership of Science and Society” will be an ICSU public forum. The actions undertaken by ENHANS and IRDR have been presented at first, followed by discussions addressing the following questions:

- (i) How natural and social sciences can integrate their knowledge for disaster reduction?
- (ii) How science and society can form partnership for disaster reduction?
- (iii) How science and society partnership can convert natural disaster risk to opportunity?
and
- (iv) What are the urgent issues of disaster risk in mega cities and regions under intensifying natural and social pressure?

Scientists, public managers, policy makers and other stakeholders will be invited to present solutions to the problems, to indicate the potential barriers and break-throughs. The outcomes will be reflected in the next step actions of IRDR. The following distinguished experts in natural hazards, extreme events, disaster risk analysis as well as representatives of various organizations dealing with relevant problems delivered talks are the symposium:

- Tom Beer, Centre for Australian Weather and Climate Research, CSIRO, Australia
- Salvano Briceno, U.N. International Strategy for Disaster Reduction
- Stephen Dovers, Fenner School of Environment and Society, Australian National University, Canberra, Australia
- John Eichelberger, Volcano Hazards Program, USGS
- Kevin Furlong, Penn State, USA
- Harsh Gupta, National Geophysical Research Institute, Hyderabad, India
- Fumi Imamura, Disaster Control Research Center, Tohoku University, Japan
- Kojiro Irikura, Aichi Institute of Technology, Japan
- Susan Kiefer, University of Illinois, USA
- Akio Kitoh, Meteorological Research Institute at Tsukuba, and Kyoto University, Japan
- Reiko Kuroda, University of Tokyo, Japan
- Paul Linden, University of Cambridge, UK
- Gordon McBean, University of Western Ontario, Canada
- Neville Nicholls, Monash University, Melbourne, Australia
- Kenji Satake, University of Tokyo, Japan
- John Schneider, Risk and Impact Analysis Group, Geoscience Australia
- Soroosh Sorooshian, University of California at Irvine, USA
- Kuniyoshi Takeuchi, International Centre for Water Hazard and Risk Management, Tsukuba, Japan
- Sisi Zlatanova, Delft University of Technology, The Netherlands

Focus on education

The need for a scientifically literate populace is increasingly recognized as critical in many countries, as they face the consequences of increasing population pressures, limited resources and environmental degradation. Basic science literacy, coupled with scientific "ways of knowing" – namely drawing conclusions based on observation, experiment and analysis – provides citizens with the tools needed for rational debate and sound decision-making based on scientific knowledge" (from the 2011 report of the ICSU Ad-hoc Review Panel on Science Education).

Geoscience education and particularly education on extreme natural events and disaster risk is profoundly important for basic science literacy of the population living at risk. Moreover, a special attention should be given to economically less-developed countries.

The *Advanced School on Understanding Prediction of Earthquakes and other Extreme Events in Complex Systems* covers a wide range of the recent developments in the field of natural and socio-economic extreme hazards and disaster risks. During two weeks school, prominent experts in the relevant area of research, will deliver lectures and give seminars to earlier career scientists mostly from developing countries. For more detail, please visit the Abdus Salam International Centre for Theoretical Physics (www.ictp.it).



Student poster session at the Advanced School

5. News from the AGU Council

AGU held the Council Meeting in Washington, DC, on 18-19 August 2011. The Council discussed how a dynamic portfolio could be developed in AGU to address the needs of interdisciplinary science and science for the benefit of humanity; reviewed the AGU publications; how AGU elections in 2012 should be held; and some others. Among other items, the council members discussed and approved the proposal of the Natural Hazards Focus Group to established the Gilbert F. White Distinguished Lecture Award in Natural hazards. The award will recognize outstanding scholars in the field of NH and disaster risk assessment. Dr. Gilbert F. White was one of the leading XXth century scholars in the field of natural hazards, and the NH Focus Group is pleased that AGU decided to name the lecture as "Gilbert F. White Distinguished Lecture".

The next Council Meeting will be held in San Francisco on Sunday, 4 December.

Note: Contributions to AGU Natural Hazards Focus Group Newsletters are welcome from AGU members. Please send your contributions to Ilya Zaliapin by e-mail nathazards@gmail.com or via the "Contact" page at the group Website (<http://nh.agu.org/contact/>) inserting the Subject line: "Contribution to AGU NHFG Newsletters". The contributions will be reviewed and may be shortened.

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