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## Natural Hazards Focus Group Newsletter, No. 8 (November, 2012)

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### Contents:

1. Congratulations to the elected officers of the NH Focus Group!
2. Chair Report 2012
3. News from the 2012 AGU Fall Meeting / Reception
4. First Gilbert F. White Distinguished Lecture by Dr. Ross Stein
5. 2012 Graduate Research Awardee Dr. James Belanger
6. AGU Board and Council election
7. GRC Conference “Extreme Natural Hazards and Their Impacts”

### Important Dates

**3 December:** Frontiers in Natural Hazards talk “USGS research on geohazards of the North Pacific: past, present, and future” by *Marcia McNutt*, Director of the U.S. Geological Survey (4:00PM, Room MS 104)

**4 December:** GF White Lecture “**Defeating Earthquakes**” by *Ross Stein* (11:20- 12:20AM, Room MS 103)

**4 December:** NH Focus Group Reception (6:30-8:00PM, InterContinental San Francisco Hotel, Ballroom A)

**6 December:** The Town Hall meeting “Interdisciplinary Approach to Hazards, Risk and Vulnerability: Responding to the ENHANS Declaration” (12:30 PM - 1:30 PM, 2011 Moscone West)

## AGU NATURAL HAZARDS FOCUS GROUP NEWS No. 8 (November 2012)

### 1. Congratulations to the elected officers of the NH Focus Group!

**President:** Richard (Rick) Murnane



Rick Murnane is Senior Research Scientist and Program Manager of the Risk Prediction Initiative of the Bermuda Institute for Ocean Sciences (BIOS). He graduated from the University of California at Santa Cruz and received his PhD in Geological and Geophysical Sciences from Princeton University in 1988. Rick mentioned in his position statement: “I would hope to bring to the position my experience and perspective at the interface among academia, the private sector and

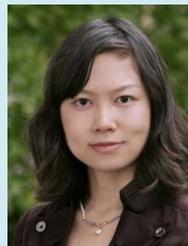
the public sector. ... In addition to facilitating the expected Focus Group activities such as newsletters, student awards and nominations for fellows, I would look to support collaborations within a variety of AGU Sections and Focus Groups ..., and with other national and international scientific organizations.”

**President-Elect:** Upmanu Lall



Upmanu Lall is the Alan and Carol Silberstein Professor of Earth and Environmental Engineering and Director, Columbia Water Center, Columbia University. He received his B.S. in 1977 from the Indian Institute of Technology and both his M.S. (1980) and Ph.D. (1981) in civil engineering from the University of Texas. In his position statement Upmanu wrote: “My interest in the office is motivated by my interest in Natural Hazards, and specifically climate related hazards. I am interested in both the modeling of the stochastic processes associated with NH in general, and in strategies for impact management in a holistic way. I am in the process of developing a Global Flood Initiative, focusing on climate factors and their intrinsic predictability, and am quite interested in addressing the management of such risks, particularly in the face of globalization and supply chain risks. I feel that the science community needs to take on these as applied and practical challenges, separate from the debate about climate change. My hope is to help develop such an agenda jointly with other colleagues in academia, industry and government at a global scale, and to do this as part of the engagement with NH. I am already involved in the World Economic Forum Water and risk groups and bringing that community together with AGU could have useful outcomes.”

**Secretary:** Ning Lin



Ning Lin is Assistant Professor of Civil and Environmental Engineering, Princeton University. She received her Ph.D. from Princeton University, M.S. from Texas Tech University and B.S. from Huazhong University of Science & Technology (China). She is interested in Natural Hazards and Risk Assessment, Stochastic Modeling, Wind Engineering, Coastal Engineering, Climate Change Impact and Adaptation, and Built Environment and Sustainability. Specifically, her current research integrates science, engineering, and policy to study tropical cyclones and associated weather extremes (e.g., strong winds, heavy rainfall, and storm surge), how they change with climate, and how their impact on society can be mitigated. The methods will be extended to study

other natural hazards, in the context of multi-hazard risk analysis. In her position statement Ning wrote: "If elected to be the NH focus group secretary, I will carry out the duties to communicate with the NH members, collaborate with the president and president-elect on the NH newsletter, update the NH website, and prepare business meetings. I will promote NH activities in science, engineering, and economic and policy communities. Particularly, I will make efforts to encourage students, post-docs, and junior researchers from various fields to participate in NH research and collaborations."

Newly-elected President, President-elect and Secretary of the Focus Group begin their term on 1 January 2013 and serve for 2 years.

## 2. Chair Report 2012



### What's the best thing that happened in the Natural Hazards Focus Group this year?

- The first recipient of the new Gilbert F. White Distinguished Lecture Award in Natural Hazards was selected: **Ross Stein**, U.S. Geological Survey (see below)
- The 2012 AGU Natural Hazards Focus Group Graduate Research Award went to **James Belanger**, Georgia Institute of Technology (see below).
- The 2011 AGU Outstanding Student Paper Award in Natural Hazards went to **Jonas von Ruetttte** (ETH Zurich), **Themistoklis Stefanakis** (ENS de Cachan), and **Michael Verrier** (San Diego State University).
- For the first time NH focus group elected the group officers. **Rick Murnane** (Bermuda Institute for Ocean Sciences, Bermuda; disaster risk management), **Upmanu Lall** (Columbia University, New York; hydrology), and **Ning Lin** (Massachusetts Institute of Technology, Cambridge; atmospheric sciences) have been elected President, President-elect and Secretary of the NH focus group, respectively. Early career scientist **Kelly Klima**, a representative of the NH focus group, was elected a member of the AGU Council (2013-2014).
- The Chair of the NH Focus Group **Alik Ismail-Zadeh** met with Gretchen Kalonji, Assistant Director-General for Natural Sciences of UNESCO, in Paris to discuss issues related to disaster risk assessment. The assessment could be performed by a high-level intergovernmental body comprising of experts on natural hazards and disaster risk analysis. The assessment would contribute to enhance the knowledge of disaster risk at global, regional, and local levels and the awareness of the people living with risk.
- The Vice Chair of the NH Focus Group **Susan Cutter** was invited to speak at the first AGU Science Policy Conference (Washington, D.C., 30 April-3 May 2012).
- The Secretary of the NH Focus Group **Ilya Zaliapin** is a co-organizer of the international

workshop “Mathematics of Climate Change, Related Natural Hazards and Risks” (29 July – 2 August 2013, Mexico City) under the patronage of the International Mathematical Union (IMU), the International Union of Geodesy and Geophysics (IUGG), the International Union of Applied and Theoretical Physics (IUTAM), and the Regional Office for Latin American and the Caribbean of the International Council for Science (ICSU).

- The Member of the NH Focus Group **Harsh Gupta** was appointed by the Indian Prime Minister to serve on the Board of the National Disaster Management Authority of the Government of India.

#### How is NH focus group promoting the science?

- The NH focus group fosters a focus within AGU on studies of geophysical hazards and promotes fundamental research into the links between extreme natural hazards and dynamic processes on Earth and in space; real-time and long-term monitoring of active Earth processes; quantitative natural-hazard modeling; studying predictability of natural extreme events, their operational forecasting, and reducing predictive uncertainties; and implementation of effective strategies and designs for hazard mitigation and disaster management worldwide.
- The NH focus group promotes science on disaster risk analysis for the benefit of society to mitigate (and to prevent, if possible) harmful consequences of disasters caused by extreme natural events.
- The NH focus group promotes NH sciences via networking with distinguished stakeholders dealing with NH and disaster risk (DR) studies: the Union Commission on Geophysical Risk and Sustainability of the International Union of Geodesy and Geophysics (IUGG); the International Scientific Programme Committee on Integrated Research on Disaster Risk (IRDR) of the International Council for Science (ICSU), International Social Sciences Council (ISSC), and the United Nations International Strategy for Disaster Reduction (UNISDR), the Asian Oceania Geosciences Society (AOGS), and the European Geosciences Union (EGU).

#### What have been the most effective ways to engage members and communicate information?

- The most effective ways to engage AGU members and communicate information is e-mail correspondence (e.g., NH quarterly newsletters, important short messages) and the NH web-page. Normally NH members are active before and during FMs, and less active between the FMs.
- Most important decisions of the AGU Council are communicated to the NH members via newsletters.

#### How is the NH focus group approaching and/or engaging students and early career scientists?

- The NH focus group promotes talented students and earlier career scientists. Two awards of the group (Graduate Research Award and OSPA) concern young talents. The NH focus group attracts young talented researchers and students to work on programs of the group.
- The Executive Committee (EC) of the NH focus group has a seat reserved for a student member. At present **Hans Lechner** (PhD Candidate at Michigan Technological University) is a student representative at the EC.

#### How is the NH focus group encouraging diversity and inclusiveness?

- The NH focus group is truly multi- and trans-disciplinary group of scientists and students. We promote an international participation and collaboration at all levels. Three seats of the EC are reserved for NH experts from Africa, Asia and South America.

- The NH focus group collaborates with AOGS (a joint session on concatenated extreme events held at the AOGS-AGU Joint meeting in Singapore), IRDR (cooperation in the FORIN program), and IUGG (cooperation in the organization of the GRC conference on extreme natural hazards to be held on 8-11 December 2012 in Orange, California).

Finally, as I conclude my work as Chair of the Natural Hazards Focus Group by the end of this year, I wish to thank the AGU President Mike McPhaden for selecting me to become the first Chair of the new Natural Hazards Focus Group; the AGU Council (Chair Carol Finn) for intensive discussions on the AGU scientific policy; and the AGU Executive Director (Chris McEntee) and AGU Staff Members for their great assistance in the activity of the NH focus Group. I am very grateful to the Executive Committee of the NH Focus Group as well as to the Advisory Committee for their work of the past 3 years. In particular, the NH Focus Group Vice Chair Susan Cutter and Secretary Ilya Zaliapin have served the group with passion and dedication. It has truly been an honor to stand beside them.

Best wishes to newly elected officers and all NH members for a successful 2012 Fall Meeting and the next year to come.

Alik Ismail-Zadeh

### 3. News from the 2012 AGU Fall Meeting

The 2012 FM features a range of NH sessions. The NH Program run for the whole week and included 450 oral talks and posters in 38 NH sessions covering various aspects of natural hazards as hazard assessment techniques and mitigation strategies, data collection approaches, extreme events, interaction with government, policy and decision makers, as well as numerous case studies. A 30% increase in the number of submitted abstracts compared to the 2011 FM.



The **Frontiers in Natural Hazards** talk “USGS research on geohazards of the North Pacific: past, present, and future” will be presented by **Dr. Marcia McNutt** (Director of the U.S. Geological Survey) on Monday, 3 December, at 4:00PM (Room MS 104).

The **NH Focus Group Reception** will be held on Tuesday, 4 December, 6:30-8:00PM, InterContinental San Francisco Hotel (next to the Moscone Center), Ballroom A.

The **Town Hall meeting** (Thursday, 6 December, 12:30 PM - 1:30 PM; 2011 Moscone West) “Interdisciplinary Approach to Hazards, Risk and Vulnerability: Responding to the ENHANS

Declaration” organized by the Student Representative of the NH Executive Committee Hans N. Lechner is aimed to target members of the Natural Hazards Focus Group to explore the feasibility of a special publication that will address the goals of the ENHANS declaration by integrating scientific knowledge and understanding within a socioeconomic and cultural context through an inter-disciplinary approach to hazard, risk and vulnerability research.

**Town Hall Meeting “Reducing Hazards and Risk in Developing Nations: Responding to the ENHANS Declaration”** (Thursday, Dec. 6 at 12:30-1:30pm in 2011 Moscone West). This meeting will focus on the ENHANS Declaration (<http://www.enhans.org/about/Declaration.pdf>) and the promotion of a coordinated effort to integrate the physical and social sciences to address the needs for all stakeholders involved in disaster risk reduction research. We hope to gather both researchers and practitioners for this discussion. Through years of experience in developing countries, it has become clear that this strategy is necessary for effective disaster risk reduction. The ultimate goal of this Town Hall Meeting will be a call for papers for inclusion in a special publication that will address this field of research. The format of this meeting is a free-flowing academic discussion and brainstorming activity that will follow several predefined talking points. We especially encourage students and emerging researchers interested in further exploration of this field to attend and participate in the discussion; the meeting may be of particular interest to those who could benefit from publication of their inter-disciplinary research.

**AGU 2012 workshop - Contribute Geomorphology Case Studies and get a \$250 honorarium**  
Geomorphologists from around the globe are adding their own Case Studies, Place-based Examples, and Mathematical Descriptions of surface processes to an on-line, public archive of *Vignettes* to accompany the new textbook, *Key Concepts in Geomorphology* (release date, late spring 2013 by W. H. Freeman). Share your work, help train the next generation of students, and earn a \$250 honorarium by creating *Vignettes* and joining colleagues for an evening of peer-review at AGU: Thursday, December 6, 4:00-8:00pm; AGU, Marriott Marquis-Walnut Rm., San Francisco. For details, please contact Professor Paul Bierman, University of Vermont, Department of Geology, [paul.bierman@uvm.edu](mailto:paul.bierman@uvm.edu), 802-238-6826.

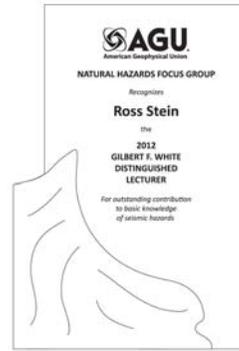
#### **Judge the Outstanding Student Paper Awards (OSPA) at Fall Meeting!**

The Outstanding Student Paper Awards (OSPAs) are awarded to promote, recognize and reward undergraduate, Master’s and PhD students for quality research in the geophysical sciences. Each year, sections and focus groups recruit judges to assess and score student presentations. Typically the top 3-5% of presenters in each section/focus group are awarded an OSPA. For more information, please visit the OSPA page!

#### **4. Winner of the first Gilbert F. White Distinguished Lecture Award**

The Award Committee chaired by Susan Cutter (University of South Carolina) and represented by John Eichelberger (U.S. Geological Survey), Kerry Emanuel (Massachusetts Institute of Technology), Upmanu Lall (Columbia University), Mary Lou Zoback (Stanford University), and Ilya Zaliapin (University of Nevada Reno, ex officio) selected **Dr. Ross Stein** (U.S. Geological Survey) as the first AGU Natural Hazards Focus Group Gilbert F. White Distinguished Lecturer.

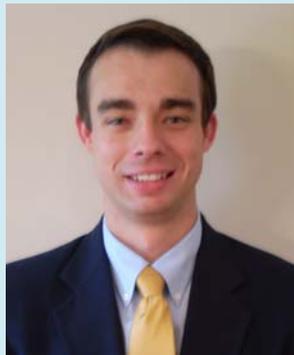
The 2012 White Lecture “**Defeating Earthquakes**” will be delivered by Ross Stein on Tuesday, 4 December 2012, at 11:20- 12:20AM, Room MS 103, Moscone South, San Francisco, California.



The presentation of the plaque will be made at the Ceremony before the White Lecture.

### 5. Winner of the 2012 Graduate Research Award

Dr. **James Belanger** of the School of Earth & Atmospheric Sciences, Georgia Institute of Technology, is the 2012 AGU Natural Hazards Focus Group Graduate Research Awardee. The award is given for *his original research on understanding and assessing the predictability of hurricanes*. The Award committee has emphasized substantial creativity, originality, and maturity of the work and recognized Mr. Belanger's potential to become a leader in the meteorological hazard field.



James received his Ph.D. in Earth & Atmospheric Sciences from the Georgia Institute of Technology in August 2012 and B.S. from the same Institute in 2007. He was a recipient of ARCS Scholarship (2011-2012), Glen Cass Award (2011), Best Student Presentation AMS Applied Climatology Conference (2010), Georgia Tech President's Fellowship (2008-2011), and AMS Graduate Fellowship (2007). His research interest covers tropical cyclogenesis, atmospheric predictability and atmospheric dynamics.

### 6. AGU Board and Council election

The results of the 2012 AGU Election for the **Board of Directors**

- President-Elect: Margaret Leinen
- International Secretary: Sue Webb
- Board Members: John Bates, Cathy Constable and Rana Fine

Their 2-year terms begin 1 January 2013. They join these continuing Board members for the 2013-2014 term:

- President: Carol Finn
- Past President: Mike McPhaden
- General Secretary: Lisa Tauxe
- Executive Director/CEO: Chris McEntee
- Board Members: Rafael Bras, Mary Anne Carroll and Mary Voytek

Four other Board members will be appointed by early next year: Chair of the Development Board, Vice Chair of the Council, and two at-large members.

The results of the 2012 AGU Election for the Council, including students, early career scientists, section/focus group presidents-elect, and a few focus group presidents could be found at the AGU web-page: <http://sites.agu.org/elections/files/2012/06/Council.pdf>.

Among the elected Council Members are President Richard J. Murnane and President-elect Upmanu Lall of the Natural Hazards Focus Group and Kelli Klima (former Student Member of the Executive Committee) as an Early Career Scientist. Congratulations to them!

They join the continuing members of the AGU Council. AGU's new President-Elect Margaret Leinen will chair the Council starting 1 January 2013. Dr. Leinen will work with the Council to appoint up to 5 additional Council members according to the bylaws, and incoming President Carol Finn will appoint committee chairs. The Council Leadership Team will be elected after the first of the year.

## **7. GRC Conference "Extreme Natural Hazards and Their Impacts"**

The GRC Conference (GeoRisk2012) on Extreme Natural Hazards and Their Impacts will be held on the campus of Chapman University, Orange, California from 8 to 11 December 2012 immediately after the AGU Fall Meeting in San Francisco. The conference is organized by the International Union of Geodesy and Geophysics (IUGG) and co-sponsored by the AGU Natural Hazards Focus Group and Chapman University. A Special Seminar "Forensic Investigations of Disasters (FORIN)", co-sponsored by IUGG and Integrated Research by Disaster Risk (IRDR) Scientific Programme, will be held at the GRC Conference. More information can be found at <http://www1.chapman.edu/~rsingh/GeoRisk2012/>

Note: Contributions to AGU Natural Hazards Focus Group Newsletters are welcome from AGU members. Please send your contributions to Ning Lin by e-mail [nathazards@gmail.com](mailto: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.

Editors: A. Ismail-Zadeh and I. Zaliapin