

**AMERICAN SOCIETY OF MECHANICAL ENGINEERING**  
**APPLIED MECHANICS DIVISION**  
**Committee on Uncertainty & Probabilistics (COUP) Meeting**  
**April 30 – May 1, 2006**  
**Newport, RI**

**Minutes**

**Time:** April 30, 2006, Sunday, 4-6 pm (casual meeting); May 1, 2006, Monday 6-8 pm

**Attendance:** Lori Graham-Brady (Vice Chair, Johns Hopkins Univ), Chris Pettit (US Naval Academy), Ben Thacker (SWRI), Michael Enright (SWRI), Xi Frank Xu (Stevens Institute of Technology), Gerhart Schueller (Institut fuer Mechanik, Austria), Jason Pepin (Los Alamos National Labs), Harry Hilton (Univ. of Illinois), Luc Huyse (SWRI)

**1. Sunday meeting**

Because of a time conflict on Sunday for many traveling to Newport, a casual discussion of COUP and its possible roles ensued. Given the presence of the Nondeterministic Approaches committee in AIAA, the Probabilistic Methods Committee in ASCE, the IASSAR groups, the ICASP groups, the SAE Probabilistic Methods Committee, and the Safety Engineering and Risk Analysis Division (SERAD) of ASME, the role that COUP could play within this community was discussed. While SERAD exists as a separate division within ASME, those present felt that COUP could serve the purpose of providing a more specific home for probabilistic and uncertainty methods within the mechanics-based applications of interest to ASME. A significant danger, however, is that of over-extending the members of all of these committees by generating too many technical committees. With this in mind, the attendees suggested that COUP serve as a complement to the other committees. For example, joint coordination of conference sessions would help both groups, and may enable more sessions at conferences that are not specifically targeted to probabilistic methods. This discussion helped shape the goals established in the more formal meeting that followed on Monday May 1.

**2. Monday meeting**

The meeting began with a continuation of the previous day's discussion of the role of COUP. It was agreed that the best way to proceed would be for COUP to support and collaborate with other committees as much as possible in order to bring probabilistic and uncertainty methods to the attention of a broader audience. In the long term, this could mean working on short courses, active involvement in journal reviews, generation of publications, etc. In the short term, however, the most obvious way to do this was through conference participation. Specific sessions that were proposed include:

- Lori and Mohammad will attempt to coordinate with SERAD (perhaps contact Prof. Haldar) in generating session(s) at the IMECE07 in Seattle, 11/11-11/16.
- Chris Pettit will help to coordinate ASME co-sponsored sessions at the NDA in Waikiki in April 2007.
- Gerhart Schueller is interested in organizing sessions at the 2007 USNCCM in Berkeley on stochastic computational methods.
- Mike Enright is interested in organizing session(s) at the 2007 TurboExpo in Montreal.

Other future conferences of interest include

- 1- USNCTAM 06 (Boulder 6/25-6/30/06) – joint committee meeting with ASCE PMC?
- 2- WCCM (Los Angeles 7/16-7/22/06)
- 3- ASME IMECE (2006: Chicago 11/5-11/10; 2007: Seattle 11/11-11/16)
- 4- ASME Mechanics & Materials (Austin, 6/3-6/6/07)
- 5- ASCE Engineering Mechanics (Blacksburg, 6/3-6/6/07)
- 6- Next NDA conference (Waikiki 4/23-2/26/07)
- 7- ICASP10 (Tokyo 7/31-8/3/07)
- 8- US Natl Congress on Computational Mechanics – Berkeley 2007
- 9- TurboExpo – Montreal Spring 2007
- 10- Fatigue 2006 - Atlanta
- 11- Potential jointly sponsored Probabilistic Mechanics Conf. with ASCE in Central Coast CA – Roger Ghanem: next step?
- 12- Others?

### **3. Creation of centralized conference information**

One idea that emerged for COUP was to serve as a centralized resource for upcoming conferences. Through coordination with chairs of other probabilistic committees, COUP could provide a list of upcoming conferences and probabilistic sessions across all of the groups. This would facilitate collaborations between all the committees, and such a centralized source of information is sorely lacking. The first step in this effort will be for Mohammad and Lori to contact leadership of these other committees to see if they are interested in such a coordination.

### **4. Next meeting of COUP**

The next COUP meeting will take place at the IMECE in Chicago 11/5-11/10/06. Lori and Mohammad will investigate the possibility of having Pol Spanos come talk to the group about opportunities he sees for COUP within ASME. Pol's experience in the Executive Committee and as Chair of the Applied Mechanics Division puts him in a unique position to help define a valuable role for COUP.

### **5. Conclusion**

The meeting concluded at 8 PM.