February 23, 2009

CSDMS Meeting Agenda
Cyberinformatics and Numerics Working Group

University of California at Santa Barbara (UCSB)
Hosted by CSDMS and Eckart Meiburg's Group
March 3rd, 2008

9:00 am   *Eckart Meiburg, New Chair of the Cyber Working Group, UCSB*
Welcome and group introductions

9:20 am   *Boyana Norris, Computer Scientist, Argonne National Lab*
Introduction to the PETSc solver library for HPC

9:40 am   *Reed Maxwell, Professor/Modeler, Colorado School of Mines, Golden*
The ParFlow hydrologic model and HPC lessons learned

10:00 am   *Joe Galewsky, Modeler, University of New Mexico*
HPC modeling experiences (perhaps the WRF model ?)

10:20 am   *Terry Smith, Professor and Modeler, UCSB*
HPC issues related to fluvial landscape evolution modeling

10:40 am   Break (20 minutes)

11:00 am   *Rich Wolski, Professor & EUCALYPTUS Developer, UCSB*
Cloud computing and EUCALYPTUS (an open-source version of
Amazon's EC2)

11:20 am   *Eckart Meiburg, Professor and CFD modeler, UCSB*
Experiences with HPC and CFD applications

11:40 am   *Brendon Hall, Recipient of CSDMS Student Modeler Award, UCSB*
Presentation of his HPC/CFD modeling work

12:00 pm   Lunch (1.5 hours)

1:30 am   *Scott Peckham, Chief Software Architect for CSDMS, CU Boulder*
1. Requirements for Code Contributors
2. Using OpenMI component interfaces within a CCA Framework

1:50 pm   Group discussion
               Topic 1: How can the Cyber Working Group help to facilitate
                         migration of CSDMS models to HPC?
               Topic 2: Strategy for using component libraries like PETSc
               Topic 3: Is the OpenMI interface suitable for HPC ?

3:30 pm   Break (20 minutes)

3:50 pm   Group discussion continued
               Topic 4: Sharing HPC knowledge with CSDMS members
               Topic 5: Working group goals for 2009

5:30 pm   Meeting adjourned
6:30 pm   Group dinner

Meeting Notes:

(1) Tao Sun, former chair of this working group regrets that he is unable to attend
       this meeting due to a schedule conflict.

(2) Please try to keep presentations under 20 minutes because our schedule is
       relatively tight and we want to leave plenty of time for discussion.