

**CSDMS 2014: Uncertainty & Sensitivity in Surface Dynamics Modeling**

May 20-22, 2014

| Time              | Location              | What   | Presenter/Facilitator                            | Topic  |
|-------------------|-----------------------|--|--|--|
| 8:00              | Bus 1 leaves hotel    |  |  |  |
| 8:15              | Bus 2 leaves hotel    |  |  |  |
| 8:30              | Registration in lobby |  |  |  |
| 9:00              | N. Bay                | Welcome                                      | Patricia Wiberg (UVA)                            |  |
| 9:05              | N. Bay                | CSDMS Updates                                | James Syvitski (CSDMS)                           |  |
| 9:35              | N. Bay                | Guest Talk                                   | Jef Caers (Stanford)                             | CSDMS: Special Issue in Computers & Geosciences Journal  |
| 9:45              | N. Bay                | Keynote 1                                    | Peter Koons (UMaine)                             | Unifying Tectonics & Surface Processes in Geodynamics  |
| 10:15             | Break                 |  |  |  |
| 10:30             | N. Bay                | Keynote 2                                    | David Pyles (CSM)                                | Testing the efficacy & uncertainty of outcrop-and-model-based studies through collaboration: A field geologist's perspective                     |
| 11:00             | N. Bay                | Breakout 1.1                                 | Terrestrial, Hydro, CZO & Geodynamics Groups     | Discussion on group activities & identifying a model to wrap w/ a BMI  |
|                   | S. Bay                | Breakout 1.2                                 | Coastal, Marine, Carbonate, & Chesapeake Groups  | Discussion on group activities & identifying a model to wrap w/ a BMI  |
|                   | 2126                  | Breakout 1.3                                 | Anthropocene, EKT, & Cyber                       | Discussion on group activities & identifying a model to wrap w/ a BMI  |
| 12:00             | Lunch                 |  |  |  |
| 1:00              | N. Bay                | Clinic 1.1                                   | Ali Khosronejad (UMN)                            | The SAFL Virtual StreamLab (VSL3D): High Resolution Simulation of Turbulent Flow, Sediment Transport, and Morphodynamics in Waterways            |
|                   | S. Bay                | Clinic 1.2                                   | Mark Piper, Irina Overeem, & Eric Hutton (CSDMS) | WMT-The CSDMS Web Modeling Tool  |
|                   | 2126                  | Clinic 1.3                                   | Chris Jenkins (INSTAAR)                          | Carbonate Models clinic-carbo* suite   |
| 3:00              | Break                 |  |  |  |
| 3:15              | N. Bay                | Keynote 3                                    | Jim McElwaine (Durham U)                         | The Dynamics of Granular Flows   |
| 3:45              | N. Bay                | Keynote 4                                    | Alexey Voinov (UTwente)                          | Exploring climate mitigation and low-carbon transition: new challenges for model integration   |
| 4:15              | N. Bay                | Student Talk 1                               | Ajay Limaye (CalTech)                            | A vector-based method for bank-material tracking in coupled models of meandering and landscape evolution   |
| 4:30              | Lobby                 | Poster Session 1                             |  |  |
| 6:30              | Buses Depart to hotel |  |  |  |
| Wednesday, May 21 |                       |  |  |  |
| 8:30              | Buses leave hotel     |  |  |  |
| 9:00              | N. Bay                | Keynote 5                                    | Andrew Nicholas (Exeter)                         | Modeling the Evolution of Large Floodplains  |
| 9:30              | N. Bay                | Student Talk 2                               | Rebecca Caldwell (IU)                            | A numerical modeling study of the effects of sediment properties on deltaic processes and morphology   |
| 9:45              | N. Bay                | Keynote 6                                    | Rudy Slingerland (Penn State)                    | The FESD Delta Dynamics Modeling Collaboratory: A Progress Report  |
| 10:15             | Lobby                 | Break  |  |  |
| 10:30             | N. Bay                | Clinic 2.1                                   | Monte Lunacek (CU)                               | Interactive Data Analysis with Python  |
|                   | S. Bay                | Clinic 2.2                                   | Scott Peckham (CSDMS)                            | Introduction to the Basic Model Interface & Standard Names   |
|                   | 2126                  | Clinic 2.3                                   | Joshua Watts (ASU)                               | Agent-Based Modeling Research: Topics, Tools, and Methods  |
|                   | 2503                  | Clinic 2.4                                   | Eunseo Choi (CERI, UM)                           | SNAC: A 3D parallel explicit finite element code for long-term lithospheric deformation modeling   |
| 12:30             | Lunch                 |  |  |  |
| 1:30              | N. Bay                | Breakout 2.1                                 | Terrestrial, Hydro, CZO & Geodynamics            | Discussion: Model Intercomparison Experiments Design   |
|                   | S. Bay                | Breakout 2.2                                 | Coastal, Marine, Carbonate, & Chesapeake         | Discussion: Model Intercomparison Experiments Design   |
|                   | 2126                  | Breakout 2.3                                 | Anthropocene, EKT, & Cyber                       | Discussion: Model Intercomparison Experiments Design   |
| 3:00              | Break                 |  |  |  |
| 3:15              | N. Bay                | Keynote 7                                    | Eric Larour (JPL)                                | Towards better quantifications of the uncertainty in polar ice-sheet projections using the open source framework ISSM                            |
| 3:45              | N. Bay                | Keynote 8                                    | Mick van der Wegen (UNESCO-IHE & Deltares)       | Estuarine morphodynamics: better be certain about uncertainty  |
| 4:15              | Lobby                 | Poster Session #2                            |  |  |
| 6:15              | Buses leave hotel     |  |  |  |
| 7:00              | Banquet at Marriott   | Participants will walk from hotel to banquet |  |  |
| Thursday, May 22  |                       |  |  |  |
| 8:30              | Buses leave hotel     |  |  |  |
| 9:00              | N. Bay                | Keynote 9                                    | Attila Lazar (Soton)                             | Coupling terrestrial and marine biophysical processes with livelihood dynamics for analysis of poverty alleviation in Bangladesh                 |
| 9:30              | N. Bay                | Keynote 10                                   | Tian-Jian (Tom) Hsu (UDEL)                       | Understanding wave-driven fine sediment transport through 3D turbulence resolving simulations-implications to offshore delivery of fine sediment |
| 10:00             | N. Bay                | Student Talk 3                               | Mariela Perignon (CU)                            | Predicting the influence of floodplain vegetation on the geomorphic effects of large floods  |
| 10:15             | Break                 |  |  |  |
| 10:30             | N. Bay                | Breakout 3.1                                 | Mary Hill (USGS)                                 | Discussion on Uncertainty  |
|                   | S. Bay                | Breakout 3.2                                 | Venkat Lakshmi (USC)                             | Discussion on Uncertainty  |
|                   | 2126                  | Breakout 3.3                                 | Xuan Yu (Penn State)                             | Discussion on Uncertainty  |
|                   | 2503                  | Breakout 3.4                                 | Bert Jagers (Deltares)                           | Discussion on Uncertainty  |
| 12:00             | Lunch                 |  |  |  |
| 1:00              | N. Bay                | Keynote 11                                   | Elwyn Yager (UI)                                 | Predictions of bedload transport in vegetated channels: uncertainties and steps forward  |
| 1:30              | N. Bay                | Clinic 3.1                                   | Courtney Harris (VIMS)                           | Sediment transport in an idealized domain using ROMS   |
|                   | S. Bay                | Clinic 3.2                                   | Gregory Tucker & Daniel Hobbey (CIRES-CU)        | Creative Computing with Landlab: A flexible Python package for rapidly building and exploring 2D surface-dynamics models                         |
|                   | 2126                  | Clinic 3.3                                   | Laura Swiler & J. Adam Stephens (SNL)            | Dakota: A Toolkit for Sensitivity Analysis, Uncertainty Quantification, and Calibration  |
| 3:00              | Break                 |  |  |  |
| 3:15              | Clinics Continued     |  |  |  |
| 4:30              | N. Bay                | Report From Working Groups                   | Discussion group reporters                       |  |
| 5:30              | N. Bay                | Final Remarks & Departure                    |  |  |
| 5:30              | Buses Depart to hotel |  |  |  |