Preamble

The goal of this workshop is to develop both the concept of a “Community Sediment Model” (CSM) and a plan for its creation. At its most basic, a CSM may be defined as a community-built and freely available suite of integrated, ever-improving software modules predicting sedimentary basin and landscape evolution over a broad range of time and space scales. Our workshop will be a success if we can develop a compelling science plan to make a CSM a reality.

Tuesday - February 19th
Location: Broker Inn - Ballroom

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1830</td>
<td>Registration &amp; Ice Breaker</td>
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Wednesday - February 20th
Location: INSTAAR - RL1 Rm 269

What is a CSM?

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
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<tr>
<td>0800</td>
<td>Registration</td>
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<tr>
<td>0830</td>
<td>Introduction and Goals</td>
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<tr>
<td>0900</td>
<td>Analog I: River Tools--from Concept to Commercial Success</td>
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<td></td>
<td>Scott D. Peckham, Research Scientist, INSTAAR</td>
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<td>0945</td>
<td>Analog II: Glaciological Models</td>
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<td>Shawn Marshall, Department of Geography, University of Calgary</td>
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<td>1030</td>
<td>Group Discussion/Break</td>
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<td>1100</td>
<td>Analog III: Community Climate System Model Plan (2000-2005)</td>
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<td>Jeffrey T. Kiehl, Chair, CCSM Scientific Steering Committee, Climate &amp; Global Dynamics Division, NCAR</td>
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<td>1200</td>
<td>Group Discussion/Lunch</td>
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<td>1315</td>
<td>Analog III (cont.): Earth System Modeling Framework</td>
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<td>Cecilia DeLuca, Computational Science Section NCAR</td>
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<td>1415</td>
<td>Analog IV: MODFLOW</td>
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<td>Lecturer: Mary C. Hill, U. S. Geological Survey</td>
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<td>1500</td>
<td>Group Discussion/Break</td>
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<td>1530</td>
<td>Modeling Strategies</td>
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<td>Lecturer: Tom Drake, Marine, Earth &amp; Atmospheric Sciences, NC State University</td>
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<td>1615</td>
<td>Group Discussion/Attitude Adjustment</td>
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Thursday - February 21st  
Location: INSTAAR - RL1 Rm 269

Current State of Sediment Modeling

0800  Landscape Evolution Models  
       Greg Tucker, Oxford University School of Geography and the Environment  
       Bill Dietrich, Department of Earth and Planetary Science, Univ. of Calif., Berkeley

0900  River Sediment Routing Models  
       Gary Parker, Dept. of, Univ. of Minnesota

0930  Clastic Shelves: The Community Sediment Transport Modeling Initiative  
       Courtney Harris

1000  Group Discussion/Break

1030  Carbonate Systems  
       Lecturer: Chris Kendall

1100  Basin-Filling Models: An Overview  
       Chris Paola, Department of Geology and Geophysics, University of Minnesota

1130  Whole Margin Models: SEDFLUX  
       Lecturer: James Syvitski, Director, INSTAAR

1215  Group Discussion/Lunch

Break Out Session: Creating a CSM

1330  Working Group I: Issues of Space/Time Scaling  
       --determine how to partition the wide range of time scales on which the CSM models will operate, and how models aimed at different time scales will be coupled

1330  Working Group II: Blueprint for a Modular Model Architecture  
       --decide on protocols for program architecture, languages, data structures, interfaces, and standards for process subroutines and modules

1330  Working Group III: Solution Schemes for a CSM  
       --determine schemes required-- such as adaptive meshes, higher order PDE solvers, moving boundaries

1330  Working Group IV: Module Definition  
       --define the processes modules to be included for each time scale, and evaluate the state of knowledge for each

1330  Working Group V: The Virtual CSM Laboratory  
       --define how the community will contribute to, and make use of, CSM

1730  Group Discussion/Attitude Adjustment

1830  Dinner at Cancun Restaurant
Friday - February 22nd
Location: INSTAAR - RL1 Rm 269

Presentation of Working Groups

0800  Working Group II
0830  Working Group IV
0900  Working Group I
0930  Break
0945  Working Group III
1015  Working Group V

Break Out Session II: CSM in Context

1045-1230  Working Group I: Interactions with field (e. g., MARGINS) and lab (e. g. NCED) efforts
            Working Group II: Linkages to ice & sediments community efforts
            Working Group III: Linkages to climate & sediments community efforts
            Working Group IV: Linkages to ocean & sediments community efforts
            Working Group V: Linkages to hydrology & sediments community efforts

1230  Lunch

1330-1445  Brief reports from Working Groups
1445  Break

Synthesis

1500  Synthesize working group results into rough-draft framework document
1800  Dinner at Oasis Brewery