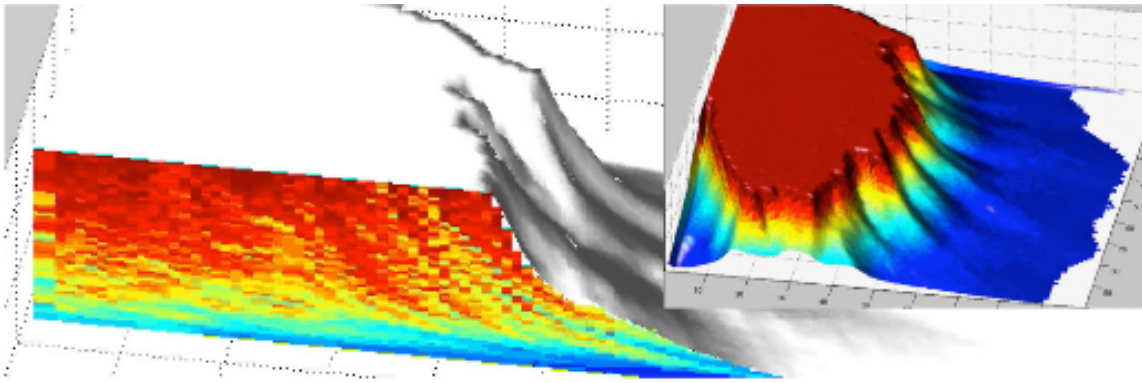


<b>S2S</b>	Margins: Community Sedimentary Model Science Plan for Sedimentology and Stratigraphy	
	James Syvitski, INSTAAR; Chris Paola, Univ. of Minn.; Rudy Slingerland, Penn State	
	8/15/2001 – 8/31/2002	OCE 01-11623
<p>A workshop called "Developing a Community Sediment Model" (CSM) took place on February 20-22, 2002, with the aim to unite the scattered efforts of various researchers and research communities in a common framework. The expected products from a funded CSM are: (1) a set of flexible, modular modeling tools and protocols, developed by the community, that would be combined to support a wide variety of model approaches, goals, and time and space scales; and (2) a set of sophisticated 'stand-alone' models created from these modular components for application in predicting surface processes. The CSM effort will address both basic science and applied problems. The predictions would be used in solving practical problems including river and coastal-zone management, risk assessment, and resource exploration and development.</p> <p>A series of 25 power point presentations is available to the community for study [<a href="http://instaar.Colorado.EDU/deltaforce/workshop/csm.html">http://instaar.Colorado.EDU/deltaforce/workshop/csm.html</a>]. These presentations provide opinions from leading experts on community model development. In various forms, quantitative modeling of the dynamics of the Earth's surface has been going on for many decades. But the hallmark of all this work is that the various groups have carried out their work on specific problems in relative isolation. The workshop tapped into several research communities with relevant experience, like atmospheric science, glaciology, oceanography and hydrology. Representatives of these groups told us about their experience, in some cases spanning more than two decades, including indispensable information about organization, code structure, management, and sociology. These are all things that the earth-science community will have to learn about if our effort is to succeed. The workshop sampled the range of environments, scientific problems, and societal applications that the CSM effort would encompass. Clearly "surface-process science" is not so much a community as the common ground among several communities. We were reminded of a number of critical aspects of surface dynamics: the range of scales (length and time); the complexity of the phenomena involved (surface dynamics is certainly one of the 'type fields' for self-organization and pattern formation); and the profound connections to other fields, including biology, chemistry, geodynamics, atmospheric science, and hydrology.</p>		

## Figures and Captions



## Publications and Presentations

A White Paper written by six of the participants (David Furbish, Chris Paola, Rudy Slingerland, James Syvitski, Greg Tucker, and Pat Wiberg) has been submitted to NSF. The white paper was presented to NSF and other federal agency managers on 07/79/03. These presentations, on behalf of the community, available at <http://instaar.colorado.edu/deltaforce/workshop/presentations2003.html>.

Slingerland, R., Syvitski, J.P.M., Paola, C., 2002. Sediment Modeling System enhances education and research, EOS, Transaction of AGU, v. 83, p. 578-579.

Syvitski, J.P.M., Paola, C. and Slingerland, R., 2002. Workshop on development of a Community Sediment Model, MARGINS Newsletter 8, p. 8-9.