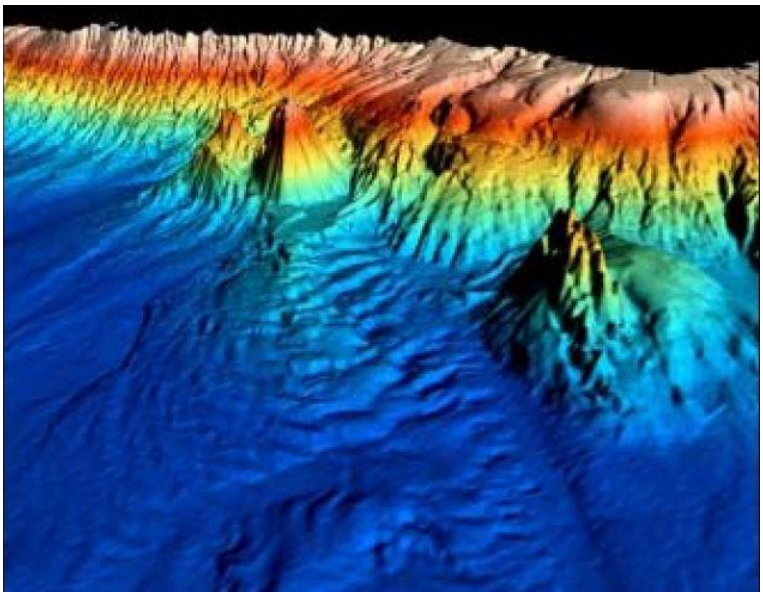
Annonce de conférence

Vendredi 17.04.2015 à 15:15, **GC C2 413 (génie civil)**

Prof. Svetlana Kostic

Computational Science Research Center
San Diego State University, USA

Formative Upper-Flow Regimes for Bedforms in Submarine Environments



Our knowledge on submarine upper-flow regime bedforms, which are quite common on the ocean floor of Earth, is very limited. There is as yet no complete phase diagram that can be used to quantify their formative flow regimes and characteristics. I will discuss how physically-based numerical modeling in combination with the field information can be used to: a) examine the hydrodynamic response of a bed consisting of fine-grained sediment waves to a wide span of turbidity current conditions; b) demonstrate that fine-grained sediment waves in various submarine environments most likely form and evolve as upper-flow regime bedforms, i.e., cyclic steps, transitional bedforms between cyclic steps and antidunes, or antidunes; and c) provide a basis for the first complete phase diagram of deep-sea bedforms. I will also discuss how our knowledge on submarine upper-flow regime bedforms on Earth can be used to test the Mars ocean hypothesis.

The conference will be given in English. Duration is of approximately 45 minutes followed by discussion.

Prof. Dr Anton SCHLEISS