

Séminaire Vendredi 13 Avril, 11h00 / Seminar Friday April 13, 11:00 AM

Conférencier/Lecturer: Dr. Anthony Wimmers
Cooperative Institute for Meteorological Satellite Studies
(CIMSS), University of Wisconsin - Madison

Sujet/Subject: Techniques of morphological image interpolation and some possible applications to satellite data assimilation

Présentation/Presentation: Anglais / English

Lieu/Room: Grande salle du premier étage CMC

Abstract:

Morphological image interpolation, or 'morphing', is the process of producing a realistic, continuous transition between two images separated in time. Several well-established methods of image morphing exist, but few of them are automated. This talk examines the use of automated morphing techniques on satellite images, including the use of satellite-derived winds vector, model-driven advection and purely feature-based transitions. The most notable application of these methods is the real-time product 'MIMIC' (Morphed, Integrated Microwave Imagery at CIMSS), which uses irregularly-spaced microwave satellite imagery to create time-continuous animations of tropical cyclones. Finally, this talk explores how these tools can also provide a framework for satellite data assimilation using the morphology of the imagery in addition to the data itself.