



Le LabEx ITEM a le plaisir de vous annoncer la tenue du séminaire :

“Climate Change Risk for North American Ski Tourism Markets”

par **Daniel SCOTT**.

le **lundi 5 décembre** 2016 à l'amphi Nord du bâtiment Pluriel, de 15h à 17h (Prépa INP, 701 rue de la piscine, sur le campus universitaire de St Martin d'Hères).

Dr. Daniel Scott is a Professor and University Research Chair in Climate and Society as well as the Executive Director of the Interdisciplinary Centre on Climate Change at the University of Waterloo (Canada). He is a leading international authority on climate change and the global tourism sector, including extensive collaborations with the United Nations World Tourism Organization, United Nations Environment Programme, the World Meteorological Organization. Dr. Scott has been a contributing author and expert reviewer for the Intergovernmental Panel on Climate Change Third, Fourth, and Fifth Assessment Reports.

Abstract

Global climate change is underway and with additional future climate change unavoidable, the tourism industry, investors, and community leaders have many questions about the risk climate change poses to winter sports businesses and ski tourism destinations.

This seminar will examine the differential climate change risk among the multi-billion dollar regional ski markets in North America. Understanding the implications of climate change for inter-market ski tourism competitiveness requires a continental scale analysis. The *SkiSim* ski operations model is used to examine the implications of climate change for ski season length, snowmaking requirements, and operational ski terrain at 349 ski areas across the United States. Nine global climate models were used to force a regional climate model and hydrological model (VIC) to develop high-resolution (4.17-km) daily temperature, precipitation and natural snow depth inputs for the 2020-2049 period. The comparative climate change risk among the five regional markets and major ski conglomerates will be discussed.

To examine the dynamics between changing ski conditions and operational ski areas with the spatial distribution of skier visits, the *SkiSim* model was coupled with an Agent Based Model in the regional market of Ontario (Canada). Daily snow conditions reports, skier visit data, and 2400 skier surveys were used to train the model. The implications of alternate ski market development and climate change scenarios for the distribution of skier visits, incidence of crowding, and the need for infrastructure investment and other adaptation options will be discussed.

In every regional market, climate change alters the sustainability and competitiveness of a large number of ski areas. Some ski tourism destinations will need to adapt to take advantage of market share gains, while for others it is clear that climate change means that “*Quae non possunt non manent*” (things that can't last don't).