Séminaire Mardi 3 Février 11h00 / Seminar Tuesday February 3, 11:00 AM

Conférencier/Lecturer: Robert Benoit, École de Technologie Supérieure (ÉTS), Montréal

Sujet/Subject: Coupling mesoscale and microscale models for surface layer wind forecasting

Présentation/Presentation: Anglais / English

Lieu/Room: Grande salle du premier étage CMC

Résumé/Abstract:

In the numerical wind resource assesment system developed at Environment Canada and known as WEST or AnemoScope, two models are coupled to achieve sufficiently high resolution for the pinpointing of new wind park projects. The initial target of WEST was to obtain annual mean wind energy maps. Recently, its capacity has been enlarged to add a short-term prognostic capacity to complement the climatological mapping. The coupling strategy, originally know as the MMC and now called the MMCP, links the full featured mesoscale LAM and the simplified dynamics microscale model; it has been enhanced to achieve wind prognosis in the 0-100 m layer above ground, on a mesh of about 100 m, and for the 0-48 h horizon covered by the LAM. The MMCP has been developed and tested over the Gaspé region in partnership with Hydro-Québec in a framework called SPÉO, for realtime power output monitoring and management. The MMCP and its validation using 13 Environment Canada stations at 10 meter are described.