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TROPICAL FORCING OF THE SUBTROPICAL JET AND THE EXTRATROPICAL FLOW FROM A SYNOPTIC PERSPECTIVE

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en salle Prud'homme au CIC

Abstract :

Tropical convection can have a significant impact on the flow in the tropics and extratropics on seasonal time scales.

The focus of this presentation is tropical convection on synoptic to sub-seasonal time scales and how it influences the subtropical and extratropical flow.

I will first present a lagrangian analysis of the export of angular momentum and potential vorticity from the tropics into the subtropics and discuss the issue of angular momentum non-conservation by subtropical and tropical eddies.

In the second part of the presentation the effect of the Madden Julian Oscillation on synoptic features such as atmospheric blocking, cyclones and Rossby wave breaking is addressed.

I will discuss the effect of the MJO located at different locations on the frequency of the synoptic features.