

## **Organized Convective Momentum Transport in MJO Context**

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Momentum transport by organized convection is considered to play a central role in scale interaction, notably in the Tropics, where its effects on the large-scale circulation are significant and direct. However, little attention has been given to this issue in global models, largely because traditional parameterizations were not intended to represent the dynamical connotations of organized convection, e.g., counter-gradient transport and upscale effects. Analytic dynamical models and cloud-system resolving models with computational domains up to global shed light on key dynamical mechanisms. The MJO, which is a primary research priority of the WWRP-THORPEX/WCRP Year of Tropical Convection (YOTC) project, is associated with two momentum transport mechanisms pertinent to organized convection: i) vertical transport of horizontal momentum by mesoscale convective systems and superclusters; ii) meridional momentum transport of horizontal momentum by Rossby gyres, which can generate equatorial super-rotation. This talk will describe these mechanisms and key physical-dynamical relationships between them.