



## **Moisture transport in baroclinic waves**

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Mid-latitude cyclones are key contributors to the poleward movement of atmospheric water vapour, but how exactly is this transport achieved at the scale of individual storms? The Met Office Unified Model is used to perform idealised simulations of baroclinic waves and investigate the three-way interaction between large-scale dynamics, the boundary-layer and atmospheric moisture. A budgeting technique is used to study the transport and ventilation of moisture from the boundary-layer. We find the two main processes for this ventilation are large-scale advection on the warm-conveyor belt and shallow convection in cumulus clouds. Results will be presented showing the relative importance of each mechanism for boundary-layer ventilation, and the role of the cyclone in redistributing this moisture within the free troposphere.