RAL SEMINAR SERIES

The Interplay of Large-Scale and Storm-Scale Dynamics on Landfalling Tropical Cyclone Asymmetry

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Tropical cyclones develop asymmetries in their wind field upon landfall, typically characterized by the effects of increased surface friction. The wind speed decreases, rainbands can be strengthened by the enhanced frictional convergence, and recent work shows that the radial wind is accelerated immediately offshore. However, Tropical Cyclone Veronica (2019) exhibited an eyewall weakening in the offshore quadrants, maintaining boundary layer wind speeds over land. Here, we investigate the impact of landfall, rainband dynamics, and the environmental vorticity, in producing the atypical asymmetric wind structure of TC Veronica. *For more information: <u>RAL events page</u>*