



Extra-tropical transition of Atlantic hurricanes in PRIMAVERA HighResMIP simulations

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We have analyzed the HighResMIP simulations performed by the PRIMAVERA partners with respect to the extra-tropical transition of tropical cyclones. We have focused on the North Atlantic and extra-tropical cyclones that reach Europe. For those storms we have analyzed their characteristics and compared them with observations and reanalysis products. Specifically we addressed the role of warm-seclusion mechanism in the extra-tropical transition using Hart diagrams. Most PRIMAVERA models are able to represent reasonably well the observed characteristics of extra-tropical transition. In agreement with the study of Dekker et al. (2018) about 50% of the storms that reach Europe are warm-seclusion storms.