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Deriving cyclone tracks for use in an automated classification

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A straightforward and efficient method to identify multiple extrema in geopotential height fields will be presented. It is the building block of an algorithm which uses the evolution of these positions to track/allocate moving and stationary centers of atmospheric fields. The main objective of the algorithm's application is the identification of storm tracks to build a climatology. En route to such a climatology the problem of different track length and motion velocity needs to be addressed. The results will be discussed in light of the "classical" European VAN BEBBER trajectories of moving storm centers indicating the necessity to define extra tracks not given by VAN BEBBER. Beyond these diagnostic aspects, results from a study which looks at the future development of storm tracks as they are produced by a dynamical climate model will be shown.