



Intercomparison of mid latitude storm diagnostics (IMILAST)

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Storm-associated damages are amongst the highest losses due to natural disasters in the mid-latitudes. Therefore the knowledge of the future variability and change in extratropical cyclone frequency, intensity and track locations is crucial for the strategic planning and minimization of the disaster impacts. Future changes in the total number of storms might be small but major signals could occur in the cyclone characteristics such as intensity, life time, or track locations.

The quantification of such trends strongly depends on the methodologies for storm track detection. Thus, scientific studies may find seemingly contradictory results based on the same datasets, which makes the interpretation of storm track analyses and projection results very difficult for any users. The project IMILAST (<http://www.proclim.ch/IMILAST/index.html>) aims at providing a systematic intercomparison of different methodologies a comprehensive assessment of all types of uncertainties inherent in the mid-latitudinal storm tracking. This should result in a kind of “handbook” which presents advantages and restrictions of different schemes, and contains definitions and a description of the available different identification and tracking schemes as well as of the parameters used for the quantification of cyclone activity and storm tracks.

In the currently running intercomparison experiment numerous groups using twenty-two different tracking methodologies are running calculations based on the same pre-defined input data sets, i.e. for a 20 year period of the ERA-interim reanalysis data, a four-month period of the corresponding spatial high resolution version, and for a number of individual storms. The results of these calculations will be analysed and compared in the future. This presentation will show first preliminary results of some of these intercomparison calculations.