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Validation of Atmospheric Dynamics (VADY) – results of large-scale teleconnectivity analysis within MiKlip

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The climate research program MiKlip, supported by the Federal Ministry of Education and Research in Germany (BMBF), has the aim to develop a climate model system that can provide reliable decadal projections of climate, including extreme weather events. A substantial part of the development process is model validation (module E within the project). Model validation within MiKlip performs comparisons of models and observations, a quantification of model uncertainties, a reliable review of the forecast results and thorough comparison of results of different model simulations.

The research project "Validation of Atmospheric Dynamics" (VADY), initiated by the cooperation partners University of Augsburg and the German Aerospace Centre (DLR), contributes to model validation within Miklip. Within the framework of VADY the focus of the Climate Research Group at the Institute of Geography at the University of Augsburg is on the validation of models with respect to the representation of atmospheric circulation types, dynamical modes and the teleconnectivity of the atmospheric circulation.
The poster shows first results of large-scale teleconnectivity analysis based on well-known teleconnections patterns such as the North Atlantic Oscillation (NAO) or the Pacific/North American Pattern (PNA). Different calculation methods are compared and results of the validation of the MiKlip prediction system, based on hindcast analysis, are shown.