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Development of a Pan-European Seasonal Forecasting System for Hydrometeorological Variables: Rainfall Forecast for Ukraine, Moldova and Romania

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The seasonal forecast of hydrometeorological variables has large societal and economic repercussions, ranging from the insurance/reinsurance industry to the energy sector, from crop production to water resources management. Improved seasonal forecast would result in more efficient management of natural resources, improved productivity, and more accurate pricing of weather-related quantities. Our goal is the development of a pan-European seasonal forecasting system for several different hydrometeorological variables, focusing in particular on rainfall, temperature and discharge. We aim at providing probabilistic forecasts of both average and aggregated values, as well extremes. Our approach is empirically-based and takes advantage of the historical records available for Europe. Different climate indices are considered as possible predictors. We present preliminary results for the seasonal forecast of rainfall for a region including Romania, Ukraine, and Moldova.