



A simple next-best alternative to seasonal predictions in Europe

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In order to build a climate proof society, we need to learn how to best use the climate information we have. Having spent time and resources in developing complex numerical models has often blinded us on the value some of this information really has in the eyes of a decision maker. An effective way to assess this is to check the quality of the forecast (and its cost) to the quality of the forecast from a prediction system based on simpler assumption (and thus cheaper to run). Such a practice is common in marketing analysis where it is often referred to as the next-best alternative. As a way to facilitate such an analysis, climate service providers should always provide alongside the predictions a set of skill scores. These are usually based on climatological means, anomaly persistence or more recently multiple linear regressions. We here present an equally simple benchmark based on a Markov chain process locally trained at a monthly or seasonal time-scale. We demonstrate that in spite of its simplicity the model easily outperforms not only the standard benchmark but also most of the seasonal predictions system at least in EUROPE. We suggest that a benchmark of this kind could represent a useful next-best alternative for a number of users.