

Quick review of GMD-2016-30 “AtmoSwing (v1.4): Analogue Technique Model for Statistical weather forecastING”

This article presents a new software, AtmoSwing (v1.4) that uses Analogue Techniques to predict rainfall over Alpine regions.

The article is overall well written and clear. Although the Analogue Technique and its implementations clearly fall within the scope of GMD, I think the article shouldn't be accepted for discussion in its present form. The reasons are manifold:

- While the authors show a good command of the Analogue Technique and of its applications, it is not clear from the manuscript which predictors should be used for the forecast of alpine precipitations. The authors present two sets, that of Bontron (2004) and of Horton et al. (2012). An evaluation (or a summary, if already done elsewhere) of the relative merits of the two methods should be shown,
- Similarly, the relative merits of the metrics used (S1 or RMSE) are not explained,
- The article doesn't present any evaluation or validation of the precipitation fields/data or alerts provided by AtmoSwing,
- In general, the article is too general and descriptive and should detail the specifics of the present implementation of the Analogue Technique.

Another point (though not a reason for rejection) is about the practical use for forecasters: as the authors rightly pointed out, it is impossible to apply analogue techniques directly on NWP forecasts of meteorological parameters, since the analogues are provided by other models, with different resolution. A coherent (I.e with the same model version and resolution) and long enough period of NWP forecasts can be hard to come by, especially for rare episodes. This may restrain the practical use of AtmoSwing for operational precipitation and flood forecasts. Maybe the authors could comment on that?

These objections are by no means a definitive answer; I encourage the authors to improve the manuscript on the points listed above and to submit a new version. This work is promising, particularly in its ensemblist approach of precipitation fields for forecasters, and also for the potential of improvement and “extension” of NWP forecasts through this statistical post-processing method. The fact that it doesn't require extensive computing resources is also a plus.