



## **The probabilistic Forecast Convergence Score (pFCS)**

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Forecast consistency is a key property of meteorological forecasts and information on this can be used to complement traditional performance measures in order to aid decision making and forecast system diagnostics. In this paper a probabilistic forecast convergence score is proposed, the pFCS. The properties of the score are illustrated and analysis on ECMWF EPS forecasts is performed. It is shown that the pFCS can be used to give an integrated measure of the consistency of probabilistic forecasts and when used alongside traditional skill scores it can give a more complete assessment of the performance of an EPS. The score allows the quantification of consistency attributes, for example, an underspread ensemble leads to lower consistency. In addition, with respect to this application of the ECMWF EPS forecasts indicative results suggest that a low skill score is associated with a high inconsistency.