



## Diagnosing the origin and predictability of extratropical circulation anomalies

Thomas Jung (1,2), Laura Ferranti (2), Gereon Gollan (3), Richard Greatbatch (3), Torben Kunz (3), Jean-Jacques Morcrette (2), and Frederic Vitart (2)

(1) AWI, Bremerhaven, Germany (Thomas.Jung@awi.de), (2) ECMWF, Reading, United Kingdom, (3) IFM-GEOMAR, Kiel, Germany

A relaxation method is introduced that can be used to diagnose the origin and predictability of extratropical circulation anomalies on a range of time scales. The method is illustrated for the two negative NAO winters of 2005/06 and 2009/10. Furthermore, estimates are provided of the seasonal predictive skill of extratropical circulation anomalies which can be expected from better seasonal forecasts of the tropical atmosphere and the Northern Hemisphere stratosphere.