

Geophysical Research Abstracts,  
Vol. 10, EGU2008-A-02487, 2008  
SRef-ID: 1607-7962/gra/EGU2008-A-02487  
EGU General Assembly 2008  
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## **Key Dynamical Features of the 2005/06 European Winter**

**M. Croci-Maspoli, H.C. Davies**

Institute for Atmospheric and Climate Science, ETH Zurich, Switzerland  
([mischa.croci-maspoli@meteoswiss.ch](mailto:mischa.croci-maspoli@meteoswiss.ch))

A three-part study is undertaken of the anomalously cold European winter of 2005/06. Climatological analysis indicates that the dominant pattern of climate variability in the Euro-Atlantic sector during the 2005/06 winter was not a negative phase of the NAO but a pattern with a “block-like” centre located immediately upstream of the continent. Synoptic-dynamical diagnosis indicates the frequent occurrence of long-lasting blockings in this region, and a Lagrangian trajectory analysis points to the significant role of cloud-diabatic effects in the dynamics of block inception. Finally a series of heuristic numerical simulations lend credence to the hypothesis that the occurrence of the blocks was sensitive to, and significantly influenced by, the warm surface temperature anomalies upstream over the western Atlantic and North America. Comments are made on the importance of the foregoing results for seasonal numerical weather prediction and also their relevance to consideration of climate variability and change.