Tropical origin for the severe European winter of 1962/63

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Relaxation experiments using a recent version of the ECMWF operational model are used to show that the severe European winter of 1962/63 had its origin in the tropics. Two important factors are identified. One is the extreme easterly phase of the quasi-biennial oscillation that winter and the other is the extreme easterly phase of the upper tropospheric zonal mean zonal wind in the equatorial band that winter. These results highlight the importance of accurately forecasting the tropics when considering predictability on seasonal time scales over Europe.