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The North Atlantic climate variability in single-forcing large ensemble simulations with MPI-ESM-LR

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The origin of multi-decadal climate variability in the North Atlantic is under debate. The variability could be caused by oceanic internal variability or by external anthropogenic or natural forcing. We have produced a set of single-forcing historical simulations with the Max Planck Institute - Earth System Model (MPI-ESM) in low resolution (LR). The historical-like simulations consists of 30 ensemble members and the external forcing is from the Coupled Model Intercomparison phase 6 (CMIP6). Each set of simulation is forced by either only greenhouse-gases, total ozone, solar insolation, anthropogenic aerosols or volcanic aerosols. We present first results of our attribution of the climate signals in the North Atlantic region to the different single forcings.