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On the overturning circulation in an idealized North Atlantic-Nordic Seas system

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This study addresses the circulation of a conceptual North Atlantic-Nordic Seas system. A full GCM has been set up for idealized domains in order to capture the interactions between the two basins. To diagnose the amplitude and location of vertical and diapycnal mass fluxes, we have performed a series of simulations varying the surface buoyancy forcing and the domain configurations. An essential part of the study is to investigate how heat and volume transports vary with varying ridge configurations and lateral boundaries.