

Signatures of the AMOC at the ocean's surface and below
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Signatures of the Atlantic meridional overturning circulation (AMOC) strength have been identified in the modern record of sea surface height, sea surface and subsurface temperature, and upper ocean heat content, and may potentially be found in other variables. Since the AMOC has only been continuously observed over the past two decades, these signatures or 'fingerprints' of the AMOC can be used to extend our knowledge of the AMOC over longer periods or, based on the predictability of the fingerprint variable, to increase the predictability of the AMOC. In this talk, I'll review some of the fingerprints of the AMOC over the modern record, discuss the relationship between fingerprints and processes, and highlight some limitations of fingerprints: intrinsic timescales, misattribution, and assumptions of linearity. Fingerprints can provide a powerful tool, with the potential to increase seasonal and decadal predictability, and place the present day in the context of longer term variations.