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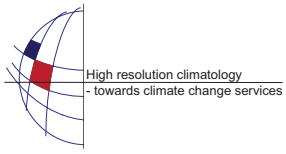

Balance and climate models

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This paper describes application of the three-dimensionally orthogonal normal-mode function (NMF) expansion to study whether and if so, how the normal modes of motions in climate models are altered in the future. NMFs were recently re-applied to study the large-scale balance in current (re)analysis fields and it was found that about 10% of wave energy belongs to inertio-gravity (IG) waves and that it is associated with tropical circulation systems. The same tool is now applied to climate model simulations. Of special interest are large-scale equatorial waves and their contribution to global energetics.