Variation of inverse cascade spectrum for gravity waves due to condensate.

During most of numerical experiments in wave turbulence of gravity waves we operate on a discrete wavenumbers grid. As a result, if we consider formation of inverse cascade, propagation of action flux to the small wavenumbers is arrested at some scale due to inefficiency of resonant four-waves interactions. It results in formation of strong long wave background, which we call condensate using analogy with Bose-Eistein condensation in Statistical Physics. As it is shown in a long numerical experiment, inverse cascade spectrum in the presence of such a condensate has a different power than predicted by the Theory of Wave Turbulence. We propose some preliminary explanation to this interesting phenomenon. (Received September 25, 2017)