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Alexander O. Korotkevich* (alexkor@math.unm.edu), Department of Mathematics and Statistics, MSC01 1115, 1 University of New Mexico, Albuquerque, NM 87131-0001. *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-Einstein 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)