



A Moisture-Stratiform Instability for Convectively Coupled Waves

Citation

Kuang, Zhiming M. 2008. A moisture-stratiform instability for convectively coupled waves. *Journal of Atmospheric Sciences* 65, no. 3: 834-854.

Published Version

<http://dx.doi.org/10.1175/2007JAS2444.1>

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Corrigendum

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Submitted to the Journal of the Atmospheric Sciences on June 1, 2008

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The purpose of this corrigendum is to correct an omission in the recent paper of Kuang (2008). When discussing the use of mid-troposphere moisture deficit as a control on the height of convection (section 2b), the author stated that in previous studies, moisture deficit was used as a control on precipitation or precipitation efficiency, and inadvertently neglected to note that Khouider and Majda (2006) did include, in addition to the effect of moisture deficit on the precipitation efficiency of deep convection, a formulation that relaxes congestus heating towards the product of the downdraft and the dryness of the free troposphere (their Eq.2.8). While their formulation and its physical justification are different from those in Kuang (2008), their formulation does have the effect of modulating the height of convection based on the free troposphere moisture deficit, which should have been pointed out in Kuang (2008). We would also like to reiterate, as discussed in Kuang (2008), that Khouider and Majda (2006) first included free troposphere moisture as a major component of a simple model for convectively coupled waves and showed that moisture plays a major role in destabilizing the system. The emphasis of Kuang (2008) was on conceptually simple treatments of convection and on revealing the basic instability mechanisms of convectively coupled waves.

References:

Khouider, B., and A. J. Majda, 2006: A simple multicloud parameterization for convectively coupled tropical waves. Part I: Linear analysis. *J. Atmos. Sci.*, 63, 1308–1323.

Kuang, Z. 2008: A Moisture-Stratiform Instability for Convectively Coupled Waves. *J. Atmos. Sci.*, 65, 834–854.