Abstract Submitted
for the DFD09 Meeting of
The American Physical Society

Three-dimensional radiative instabilities in a stratified plane jet JULIEN CANDELIER, CHRISTOPHE MILLET, CEA, DAM, DIF, F-91297 Arpajon, France, STÉPHANE LE DIZÈS, IRPHE, CNRS, BP 146, F-13384 Marseille, France — We investigate the three-dimensional stability of a stratified plane Bickley jet in the Boussinesq approximation framework. The angle θ between the shear plane and the direction of stratification and the Froud number Fr are considered as a control parameters. Following the parallel flow approximation, the instability wave solution is sought in the form of a normal mode in two directions. We draw attention to a mechanism whereby Kelvin-Helmholtz mode may have a radiative structure and more generally how internal waves (or gravity waves) associated with unstable radiative modes may be spontaneously generated.

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Date submitted: 06 Aug 2009 Electronic form version 1.4