Nonlinear Processes
in Geophysics
Discussions

Interactive comment on "Stratified Kelvin-Helmholtz turbulence of compressible shear flows" *by* Romit Maulik and Omer San

Romit Maulik and Omer San

osan@okstate.edu

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We would like to thank the Referee for reading our manuscript, and for drawing our attention to the scaling of pressure. We are also happy to read that the reviewer finds our manuscript interesting. As discussed in [1], the pressure spectrum can be expressed by $P(k) \sim kE(k)^{2}$. Indeed, this yields the pressure spectra slops of $k^{-7/3}$ for Kolmogorov scaling, and k^{-5} for Kraichnan scaling. We agree that it would be interesting to analyze the behavior of $P(k)$ in our 2D and 3D settings with different compressibilities. We will present our findings related to the scaling of the pressure in our revised manuscript.

We also thank the Referee for suggesting the typographic corrections. We will incor-

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porate these in the revision of our manuscript.

Sincerely,

Omer San

[1] Lesieur, Marcel and Ossia, Sepand and Metais, Olivier (1999). Infrared pressure spectra in two-and three-dimensional isotropic incompressible turbulence. Physics of Fluids 11, 1535-1543.

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