

Referee's Report on "Stratified Kelvin Helmholtz turbulence of compressible shear" By R. Maulik and O.San

This manuscript uses data from high resolution numerical experiments to investigate scaling behavior of energy – spectra and structure functions in compressible turbulence generated by KHI. The average kinetic energy spectra and the average density weighted kinetic energy spectra are found to exhibit similar trends in 3D but different trends in 2D. This is traced to different scaling behavior shown by the density power spectrum in 3D and 2D. The steepening of the energy spectrum with increasing compressibility as well as the tendency of the structure functions to scale closer to K41 with decreasing compressibility seem to be physically plausible. I recommend publication, subject to several typo corrections and some minor changes,

- Typos: (a) "?" on line 9 on p. 10;
(b) "E" should "Ê" in fig. 8 & 10;
(c) eq (20) should be $u(x+r) - u(x)$;
- Clean up writing on p. 12 (lines 1- 10) and p. 14 (lines 1-15) and also connect them in a coherent way.