

Comments on the manuscript "Isotropy restoration towards high-beta space plasmas"

## General Comments

The manuscript presents the studies on the dependence of the anisotropy on plasma beta employing Cluster data and hybrid simulations. The anisotropy is found to decrease with plasma beta as a power law. The power law dependence is a new results and is publishable.

## Specific Comments

1. In the second paragraph of the introduction, it is mentioned that plasma beta is the primary control parameter for the anisotropy. It means that anisotropy is either independent of or weakly dependent on other plasma parameters. The results do show variation of anisotropy with plasma beta but it does not necessarily mean that the plasma beta is the only parameter controlling the anisotropy.

It is known that anisotropy depends on the strength of large scale magnetic field [Dastgeer and Zank, The Astrophysical Journal, 599:715-722, 2003]. So it is expected that it would depend on plasma beta  $\propto 1/B^2$  as well. So is the dependence of anisotropy on plasma beta coming from the dependence on magnetic field only or the pressure also influences the anisotropy?

2. It would be useful to clarify in some more detail how 2-D spectra in  $k_{\perp}-k_{\parallel}$  space was obtained from 4-D spectra in wave-vector frequency domain obtained from Cluster observations. The 2-D spectra in the simulations is in  $k_y - k_{\parallel}$  space while in the observations it is in  $k_{\perp}-k_{\parallel}$  space, where  $k_{\perp} = \sqrt{k_y^2 + k_x^2}$ . How do the two 2-D spectra correspond to each other.