

Abstract Submitted
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Dynamics of transitional region of the solar wind turbulence with heliocentric distance V. GALINSKY, V. SHEVCHENKO, Department of Electrical and Computer Engineering, University of California, San Diego, La Jolla, California — Scale-separation model of wave-particle interaction in divergent solar wind was applied to study the transitional region of solar wind turbulence.¹ We concentrated on area from around the end of the inertial range to the region where proton cyclotron dumping is important. Our goal is to investigate how the transitional region changes due to change of the solar wind and plasma parameters (and most important due to the change of local cyclotron frequency) with heliocentric distance. Previously we discovered that shell distribution developed in solar wind due to wave-particle interaction is becoming unstable as solar wind expands.² Waves that are generated by this instability modify the transitional region of turbulence.

¹Galinsky, V.L and V. I. Shevchenko, *Phys. Rev. Letters*, **85**, 90 (2000).

²Shevchenko et al., *Phys. of Plasmas*,**11**, 4290 (2004).

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