

## ***Interactive comment on “Excitation of chorus with small wave normal angles due to BPA mechanism into density ducts” by Peter A. Bespalov and Olga N. Savina***

**Igor Alekseev**

[alexeev@dec1.sinp.msu.ru](mailto:alexeev@dec1.sinp.msu.ru)

Received and published: 11 July 2019

Comment to paper untitled “Excitation of chorus with small wave normal angles due to BPA mechanism into density ducts” by Peter A. Bespalov and Olga N. Savina  
<https://doi.org/10.5194/angeo-2019-83>

It is interesting paper, which can help us to understand more about the linear and non-linear wave-particles interaction in the middle and outer magnetosphere. We see here specific phenomena during different phases of magnetic storms. From one side, it is a pathway for injection and acceleration of the particles from midnight magnetosphere, which accompanied by the wave activity increasing. From the other side, especially

C1

at recovery phase, it is often observed cold plasma density inhomogeneities outside the plasmasphere as well as MeV electrons in the outer electron belt. The detailed description of generation and propagation of chorus into the plasma ducts, which is presented, can move us ahead in the study of these issues.

---

Interactive comment on Ann. Geophys. Discuss., <https://doi.org/10.5194/angeo-2019-83>, 2019.

C2