

There are many problems and confusing descriptions in the Sections 3 and 4.

(1) Page 7, line 54

"The power level is principally found to increase between 1 and 1.4 L-shell when the magnetic latitude of DEMETER is in between  $-20^\circ$  and  $+20^\circ$ . The source locations of kilometric wave radiation seem to be confined to a narrow L-shell region."

This means that the source region of DEMETER kilometric wave emission is located in the altitude range from about 6000 to 9000 km above the equatorial upper ionosphere ( $-20$  to  $+20$  MLAT).

However, in page 9, line 49

"the beaming of the DEMETER kilometric wave emissions is towards the Earth's ionosphere with sources localized in the plasmasphere."

These two sentences are inconsistent.

(2) Page 8, line 48-

"the parallel narrow bands as displayed in Fig.5 are mainly associated to the escaping continuum in the case of the terrestrial kilometric emission."

What is the meaning of "associated to the escaping ····". Are they same category waves in the dispersion relation or simply morphological similarity of their spectra?

(3) Page 8, line 58

"AKR-X/INTERBALL-1 experiment provided similar emissions particularly in the southern hemisphere at low magnetic latitude and at L-Shell of about 1.2 (Kuril'chik et al., 2001)."

"L-Shell of about 1.2" is wrong, and should be "R/RE of about 1.2".

The INTERBALL did not provide the data at low L-Shell region (low altitude and low latitude), but at low R/RE region (low altitude and high latitude).

(4) Again page 9, line 49

"the beaming of the DEMETER kilometric wave emissions is towards the Earth's ionosphere with sources localized in the plasmasphere."

If so, how the waves can propagate to the low altitude equatorial ionosphere through the dense plasma region? What is the propagation mode?

(5) Page 9, line 51

"It is important to note that the DEMETER kilometric events belongs to a very limited regions in range 1-2 L-Shell (as shown in Fig.7) with distances between 1.1040 RE and 1.1070 RE.

This means that the DEMETER orbits is crossing the plasmaspheric hollow cones on few dozen of kilometer."

What is the "hollow cone"?

There is no explanation. Physical explanation is necessary.

It should be strongly related to the wave generation process.

(6) Figure 9

I suppose that this figure is based on the orbital plasma data from equatorial to polar region where  $f_p$ ,  $f_g$ , and  $f_z$  changes greatly. If so, this figure is not applicable for your discussion, because the wave propagation mode to be considered here is restricted to that of the low latitude inner plasma sphere.

(7) Page 9, line 56

"Probably such restricted regions may be associated to the Z-mode waves which are linked to the free escaping L-O mode as suggested by Jones (1976) in his model. In such region the Z-mode waves are considered to be trapped and later converted into L-O mode associated to the terrestrial kilometric radiation."

Page 10, line 28-

"We suggest that the DEMETER kilometric emissions are linked to a Z-mode micro-scale region. This trapping Z-mode region can only be detected between the Earth's ionosphere and the plasmasphere. The hollow cones of this kilometric wave emissions are crossed by the DEMETER orbits at altitudes lower than 700km. Probably the source regions of the DEMETER kilometric emission should be the plasmasphere, like the terrestrial kilometric radiation."

It is still difficult for me to understand your idea of the wave generation and propagation, considering the realistic plasma environment at the plasmopause and in the plasmasphere.

I strongly recommend to add a cartoon as Figure 10, to show your idea of the source mechanism, source location, propagation path with the hollow-cone beam, and observation by DEMETER at low L-shell region.