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Statistical plasma properties in relation to geomagnetic activity derived from Demeter data

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We have analysed measurements collected by Demeter satellite for Januaries
2005-2010. The aim of this study is to derive statistical plasma properties by discribing various electron populations, characterizing them and relating their
occurence to different geophysical conditions, including deep solar minimum.
We have investigated electron temperatures and wave activity. In such a way we intend to assign each electron population to certain types of waves in plasma, describe spatial and temporal scales of plasma turbulence and find apparent physical mechanisms lying behind it