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# Electron Acceleration in the radiation belts: wave obliquity effects for $Kp < 5$ and modifications of the particle distribution for $Kp > 5$

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Electron scattering and energization in the outer radiation belt at L = 5 is examined. Based on new parameterizations of chorus obtained from 11 years of Cluster data, electron lifetimes and energization rates are shown to vary with Kp or Dst as a result of simultaneous but adverse variations of the latitudinal distribution of chorus wave intensity and wave obliquity with geomagnetic activity. Non-monotonous variations are revealed during moderate activity. During strong storms, the energization of the particle distribution is compared with a simplified model of energy broadening, allowing to recover simulation results and further suggesting a new way of inferring MLT-averaged chorus wave amplitudes (or alternatively, plasma density) from particle measurements performed at one point in the equatorial plane.