



Electron scale-size structures are everywhere; Are they electron diffusion regions?

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Structures with scale sizes the order of the electron skin depth, c/ω_{pe} , are easily found in all plasmas in the vicinity of the magnetosphere. They sometimes occur with parallel electric fields, density depletions, filamentary currents, and accelerated electrons. Issues of how to define “electron diffusion regions” and search for them in experimental data are discussed. Can the numerous structures that have been found be considered to be electron diffusion regions?