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151 Thayer Street, Providence, RI 02912. *Stability of the relativistic Vlasov-Maxwell system.*

We consider the plasma modeled by the relativistic Vlasov-Maxwell system confined in a general axisymmetric spatial domain with perfect conducting boundary which reflects particles specularly, and look at a certain class of equilibria, assuming axisymmetry in the problem. We prove a sharp criterion of spectral stability under these settings. Moreover, we provide several explicit families of stable/unstable equilibria using this criterion. If time permits I will also introduce some instability-type results on the Vlasov-Poisson system. (Received September 04, 2019)