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## Plasma turbulence induced by fully or partially separated electron and proton beams in solar flares

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This is a further research on the electron and proton beam propagation into the solar atmosphere being of fully or partially separated at ejection from a non-neutral RCS with the guiding magnetic field. We investigate in kinetic approach beam charge neutralisation by the ambient plasma particles either by return current or ambipolar diffusion and the plasma instabilities occurring as a result. A connection is sought between the original magnetic configuration causing the partially separated beams with different energy and pitch-angle spectra and the resulting plasma wave numbers. The consequences of this coupling for plasma diagnostics in solar flares are also discussed.