

Project: Electron propagation in extragalactic space

Project description:

Electrons propagating from extragalactic sources to Earth may lose energy, as they excite waves in the plasma filling the intergalactic space. In this project, the student will survey rates for this loss mechanism suggested in the literature and implement them in a numerical routine.

Final aim is to include this routine into the public code Elmag

(<https://http://elmag.sourceforge.net>). Through the project you will become familiar with high-energy astrophysics and programming using the language Fortran90.

Qualifications: Some knowledge of electrodynamics and astrophysics (FY2450); interested in learning and working with Fortran90.

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Deadline: Unspecified