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## Energetic axion-like particle production in galaxies

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Relativistic axion-like particles originating from the stellar interiors, along with the ones coming from axion-photon mixing in the galactic magnetic fields, contribute together to make an energetic component of the axion content of the galaxies. Considering an isotropic distribution of galaxies in the universe, these highly relativistic axions (Lorentz factor at least of the order  $10^6$ ) could constitute an isotropic “background” of axions for helioscope-type experiments. Taking into account the sensitivity of such experiments, it is possible to derive a bound for the axion production in the galaxies.

**Auteurs principaux:** Prof. LIOLIOS, Anastasios (Nuclear Physics and Elementary Particle Physics Department, Aristotle University of Thessaloniki, Greece); M. MANOUSOS, Athanasios (Nuclear Physics and Elementary Particle Physics Department, Aristotle University of Thessaloniki, Greece); Prof. ELEFThERiADiS, Christos (Nuclear Physics and Elementary Particle Physics Department, Aristotle University of Thessaloniki, Greece)

**Orateur:** M. MANOUSOS, Athanasios (Nuclear Physics and Elementary Particle Physics Department, Aristotle University of Thessaloniki, Greece)

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