SEMPARIS – Séminaires en région parisienne

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Seminar of the theory group of APC

Mardi 14 Novembre 2017, 14 :00
APC, 483 A - Malevitch
Domaines : hep-th

Titre : *Radiative decay of keV-mass sterile neutrinos in a strongly magnetized plasma*

Orateur : **Alexandra Dobrynina (Demidov Yaroslavl State University)**

Résumé : *The radiative decay of sterile neutrinos with typical masses of 10 keV is investigated in the presence of a strong magnetic field and degenerate electron plasma. The modification of the photon dispersion relation by the active external medium is taken into account. The limiting cases of relativistic and non-relativistic plasma are analyzed. The decay rate in a strongly magnetized plasma as a function of the plasma electron number density is compared with the unmagnetized case. It Was found that the strong magnetic field suppresses the catalyzing influence of the electron plasma on the decay rate.*