## SEMPARIS – Séminaires en région parisienne

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## **Particle Theory Seminar of LPT Orsay**

Jeudi 28 Mars 2019, 16:00

LPT, 114

Domaines: hep-ph

 ${\bf Titre}\ :\ {\it The}\ {\it Lifetime}\ {\it Frontier}\ :\ {\it Search}\ {\it for}\ {\it New}\ {\it Physics}\ {\it with}\ {\it Long-Lived}$ 

Particles

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Résumé: There is a growing interest in the High Energy community in searching for new physics with long-lived particles which decay at displaced vertices. Many models exhibit this feature. I will describe one of such models: the electroweak-scale non-sterile right-handed neutrino model. In this model, non-sterile right-handed neutrinos as well as other "mirror" quarks and leptons can be produced at the LHC and their decay products in the form of standard model particles appear at displaced vertices. A deep connection between the theta-angle of strong CP and neutrino masses will be presented.