## SEMPARIS – Séminaires en région parisienne

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## Seminar of the theory group of APC

Mardi 13 Fevrier 2018, 14:00

APC, 483 A - Malevitch Domaines : hep-th

 $\label{thm:continuous spin: Wigner's exotic} \begin{tabular}{ll} Titre: Massless elementary particles with continuous spin: Wigner's exotic representation of the Poincar\'e group \end{tabular}$ 

Orateur : Xavier Bekaert (LMPT, Université de Tours)

Résumé: Old results and recent developments on the theoretical description of elementary particles with "continuous" spin will be reviewed. At free level, these fields are described by unitary irreducible representations of the isometry group (either Poincare or anti de Sitter group) with an infinite number of physical degrees of freedom per spacetime point. We will mention a list of new results, in particular on their cubic interactions, as well as important issues that remain open.