# SEMPARIS – Séminaires en région parisienne

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## TBA

**Lundi 9 Décembre 2019, 16 :30**
IHES, Amphithéâtre Léon Motchane( Séminaire Géométrie et groupes discrets )
Domaines : hep-th

Titre : *Complementary Series for Hyperbolic Groups*

Orateur : **Adrien Boyer ( IMJ-PRG )**

Résumé : *To sum up : We will define complementary series for hyperbolic groups and prove their irreducibility. More precisely : The complementary series representations are a family of unitary representations that can be realized on the Gromov boundary of the hyperbolic group. They can be viewed as a one-parameter deformation of the quasi-regular representation arising on the boundary, "sometimes" approaching the trivial representation, in a certain sense. The starting point of this work is to find a suitable scalar product in order to unitarize the complementary series. Then, a spectral estimates combined with counting estimates enable us to prove an ergodic theorem à la Bader-Muchnik to achieve the irreducibility. Joint work with Kevin Boucher and Jean-Claude Picaud.*