# SEMPARIS – Séminaires en région parisienne

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## Workshop or Conference

**Vendredi 18 Août 2017, 11 :00**
LPTENS, Room Conf. IV( Workshop on "Exceptional and ubiquitous Painlevé equations for Physics". Please see webpage https ://indico.in2p3.fr/event/14720/ )
Domaines : math

Titre : *Painlevé equations and differential Galois theories*

Orateur : **Guy Casale ( Université de Rennes I )**

Résumé : *Paul Painlevé claimed that «irreducibility» of his equations is a consequence of the computation of their «rationality groups» as defined by Jules Drach in 1898. These objects were correctly defined by H. Umemura in 1996 and by B. Malgrange in 2001. In this lecture we will present the definition of the Malgrange groupoid on some examples. Then we will explain how to compute it for second order differential equations and we will use it to prove a weak «irreducibility property» for Painlevé equations.*