SEMPARIS – Séminaires en région parisienne

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TBA

Jeudi 13 Décembre 2018, 16 :30
IHES, Amphithéâtre Léon Motchane
Domaines : math

Titre : *Moduli spaces of discs and multiple zeta values in deformation quantization*

Orateur : **Erik Panzer (University of Oxford)**

Résumé : *Kontsevich's 1997 proof of the formality conjecture provides a universal quantization of every Poisson manifold, by a formal power series whose coefficients are integrals over moduli spaces of marked discs. In joint work with Peter Banks and Brent Pym, we prove that these integrals evaluate to multiple zeta values, which are interesting transcendental numbers known from the Drinfeld associator and as the periods of mixed Tate motives. Our proof is algorithmic and allows for the explicit computation of arbitrary coefficients in the formality morphism, in particular the star product. The essential tools are Francis Brown's theory of polylogarithms on the moduli space of marked genus zero curves, single-valued integration due to Oliver Schnetz, and an induction over the natural fibrations of moduli spaces.*