

## On Drinfel'd twists and their use in non-commutative geometry

---

**Pierre Bieliavsky\***

*Université Catholique de Louvain*

*E-mail:* [pierre.bieliavsky@gmail.com](mailto:pierre.bieliavsky@gmail.com)

I will present some recent developments in the theory of non-formal Drinfel'd twists. A Drinfel'd twist consists in a tool that allows to deform in an associative way any associative algebra that possesses a given symmetry. For instance the Moyal twist is a Drinfel'd twist for the abelian symmetry  $\mathbb{R}^d$ . I will report a general method for constructing Drinfel'd twists based on generally non-abelian symmetries. I will conclude by mentioning applications in various domains.

*Frontiers of Fundamental Physics 14 - FFP14,  
15-18 July 2014  
Aix Marseille University (AMU) Saint-Charles Campus, Marseille*

---

\*Speaker.