Contribution ID: **16** Type: **not specified**

M-theory compactifications on G_2 manifolds

Monday 22 February 2016 14:30 (15 minutes)

M-theory compactifications on G_2 manifolds give rise to interesting 4d N=1 SUGRA theories. We review a method pioneered by Kovalev to construct compact G_2 manifolds via a compatible gluing of a pair of asymptotically cylindrical Calabi-Yau threefolds, and show that these indeed give rise to a rich landscape of 4d N=1 M-theory vacua. In a certain limit we are able to analyse explicitly the target space of G_2 metrics on M-theory compactifications based on the moduli space of Kovalev's geometrical building blocks.

Presenter: GUIO, Thaisa (Bonn U.)