Contribution ID: **23** Type: **not specified**

Gauging of 2D sigma models without isometry and genuinely non-geometric backgrounds from 3D sigma models.

Wednesday, August 12, 2015 10:30 AM (1 hour)

In this talk we discuss two problems in the context of sigma models motivated by recent studies in T-duality and non-geometry.
The first problem refers to the gauging of 2D sigma models when there is no isometry available, while the second regards
the possibility to construct genuinely non-geometric backgrounds with the aid of 3D sigma models.
In both cases the underlying mathematical framework is the theory of Lie and Courant algebroids, which will be presented in the
first part of the talk. Then we shift our attention to a general class of 2D theories called Dirac sigma models and present
a novel way to gauge such theories. This gauging is useful in formulating T-duality even when there is no isometry.
Finally we discuss the correspondence between Courant algebroids and AKSZ membrane models with boundary. A certain class of such theories
offers the possibility to construct non-geometric models which do not possess a geometric dual.

Presenter: CHATZISTAVRAKIDIS, Athanasios (Leibnitz University Hannover)