

Seminar: "Geometry&Physics, DFT"
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Location: DFT seminar room

Date: Friay, 24 April 2015, 11:00 am

Title: **M-theory foliated backgrounds and non-commutative geometry**

Speaker: **Dr. Mirela BABALIC** (DFT, IFIN-HH)

Abstract: "I discuss eight-dimensional foliated backgrounds of M-theory which appear when compactifying down to three-dimensional anti-de Sitter spaces, explaining the mathematical characterization of such backgrounds which we extracted in recent work ([1],[2]), when N=1 supersymmetry is preserved in 3 dimentions. I also explain the topology of such backgrounds and the non-commutative geometric description of their leaf space. I shortly mention the implications of the foliation approach for the case when N=2 supersymmetry is preserved on the external 3-dimensional space."

References:

- [1]. E. M. Babalic, C. I. Lazaroiu, "Foliated eight-manifolds for M-theory compactifications", JHEP 01 (2015) 140, (60 pg)
- [2]. E. M. Babalic, C. I. Lazaroiu, "Singular foliations for M-theory compactifications", JHEP 03 (2015) 116, (63 pg)