

Seminar: "Geometry&Physics", DFT (IFIN-HH)
([Seminar Homepage](#)) ([Indico Page](#))

Location: IMAR, room 306-307

Date: Tuesday, February 26, 2019, 10:00-11:30 am

Title: **Non-degeneracy of cohomological traces for general Landau-Ginzburg models**

Speaker: **Dr. Calin Lazaroiu** (IBS-CGP)

Abstract: "We prove non-degeneracy of the cohomological bulk and boundary traces for general open-closed Landau-Ginzburg models associated to a pair (X, W) , where X is a non-compact complex manifold with trivial canonical line bundle and W is a complex-valued holomorphic function defined on X , assuming only that the critical locus of W is compact (but may not consist of isolated points). These results can be viewed as certain "deformed" versions of Serre duality. The first amounts to a duality property for the hypercohomology of the sheaf Koszul complex of W , while the second is equivalent with the statement that a certain power of the shift functor is a Serre functor on the even subcategory of the $\mathbb{Z}/2\mathbb{Z}$ -graded category of topological D-branes of such models."