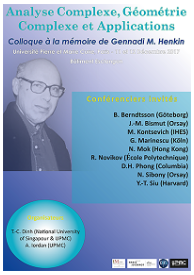

ID de Contribution: **9** Type: **Non spécifié**

Hypoelliptic deformation, self-adjointness, and analytic torsion

mardi 12 décembre 2017 09:30 (50 minutes)

The purpose of the talk is to explain the construction of non self-adjoint Hodge Laplacians, which naturally deform classical Hodge theory.
If X is a compact Riemannian manifold, let X be the total space of its tangent bundle. The deformed Hodge Laplacian is constructed over X. It is a hypoelliptic operator on X, which is essentially the sum of a harmonic oscillator and of the generator of the geodesic flow. In the real case, the symplectic form of X is used in its construction.
Applications to analytic torsion, real and holomorphic, will be given. Time permitting, connections with Selberg's trace formula will be explained.

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