Classifying space of Hodge structures and Modular foliations

Hossein Movasati

In this talk we construct an analytic variety $U$ and an action of an algebraic group $G_0$ on $U$ from the right such that $U/G_0$ is the moduli space of polarized Hodge structures of a fixed type. The space $U$ lives over the so called Griffiths domain and has the advantage that it carries certain modular foliations. The hope is that $U$ has a canonical structure of an algebraic variety such that the action of $G_0$ is algebraic and the corresponding modular foliations are of geometric origin.