Holonomic \widehat{D} modules on smooth rigid analytic spaces

Simon Wadsley

2017 - 03 - 23

The speaker and Ardakov introduced a sheaf \hat{D} of possibly infinite-order differential operators on any smooth rigid analytic space together with a notion of coadmissible \hat{D} module that is supposed to be roughly analogous to the notion of a coherent D-module on an algebraic variety. In this talk we will discuss a notion of a holonomic \hat{D} module in this context (in characteristic 0) and some of its good properties and its limitations.