

Tempered solutions of holonomic D-modules on complex curves

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In this talk we will present some recent results on holonomic D-modules on a complex curve X obtained by studying the subanalytic sheaf of tempered holomorphic solutions of ordinary differential equations. We begin by recalling the definition of the subanalytic site relative to X and the definition of the subanalytic sheaf of tempered holomorphic functions on X . Then we will present two main results. The first concerns the property of R-constructibility for the complex of subanalytic sheaves of tempered holomorphic solutions of holonomic D-modules on X . The second result links tempered holomorphic solutions with the classical analytic invariants (given by the formal decomposition and Stokes matrices) of ordinary differential equations.