Sheaves on subanalytic sites and D-modules

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Sheaf theory is not well suited to study objects which are not defined by local properties. It is the case, for example, of functional spaces with growth conditions, as tempered distributions. Since the study of the solutions of a system of PDE in these spaces is of great importance (solutions of irregular D-modules, Laplace transform, etc.), many ways have been explored by the specialists to overcome this problem. In 2001 Kashiwara and Schapira introduced the subanalytic site and proved that some of this spaces can be realized as sheaves on a subanalytic site. In this talk we will recall the theory of subanalytic sheaves and give an overview of some recent developments and applications.