

A modern approach to the Riemann-Hilbert
correspondence
Luxembourg May 2016

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In 1981, Masaki Kashiwara proved the Riemann-Hilbert correspondence for regular holonomic D -modules. For that purpose, he introduced the functor $Thom$ of temperate cohomology. This functor appears now as associated to the functor $R\mathcal{H}om(\bullet, \mathcal{O}_X^t)$ where the sheaf \mathcal{O}_X^t of temperate holomorphic functions is defined on the subanalytic site X_{sa} , for a complex manifold X (see [KS01]). In this talk I will recall how to construct the sheaf \mathcal{O}_X^t on X_{sa} and I will give the main lines of the proof of the R-H correspondence in this new settings, following [KS16].

References

- [Kas03] Masaki Kashiwara, *D-modules and Microlocal Calculus*, Translations of Mathematical Monographs, vol. 217, American Math. Soc., 2003.
- [KS01] Masaki Kashiwara and Pierre Schapira, *Ind-sheaves*, Astérisque, vol. 271, Soc. Math. France, 2001.
- [KS16] ———, *Regular and irregular holonomic D-modules*, Lecture Note Series, London Math Society, 2016.