

## Alexander Modules and Mellin transform

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### SUMMARY

I will talk about the study of Alexander modules of algebraic varieties using Gabber and Loeser's Mellin transform. The main strength of this approach is that it allows the application of the full machinery of the theory of perverse sheaves, and even mixed Hodge modules. We obtain new results about the structure of Alexander modules, especially about their torsion part and, in the multivariable case, their artinian submodules. It also yields a mixed Hodge structure on the maximal artinian submodules of the Alexander modules.

**Keywords:** Alexander modules, Mellin transform, Hodge structures

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