

Title: Fourier transform and microlocalization.

Abstract: Given a holonomic module \mathbb{M} over the Weyl algebra $K[t]\langle\partial_t\rangle$, the work of G. Laumon in the ℓ -adic setting suggests that it might be possible to describe the formal germ at infinity defined by the Fourier transform of \mathbb{M} in terms of the local behavior of \mathbb{M} at its singular points. In fact, under some assumptions on \mathbb{M} , such a description follows from work of B. Malgrange and C. Sabbah. We will show how to remove these assumptions using a suitable variant of the ring of microdifferential operators, and we will discuss applications of the formulas obtained.