

Microlocal theory of sheaves and applications to non-displaceability II, III

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Abstract. In these two lectures, I will come back and develop the material outlined in the Monday Seminar. More precisely, I will explain with more details the notion of microsupport of sheaves and its behaviour with respect to the operations, in particular in the characteristic case (inverse images) as well as in the non proper case (direct images). I will also have a glance to the functor of Sato's microlocalization making a link with linear partial differential equations.

I will recall the applications of this theory to some problems of non displaceability, comparing Tamarkin's approach to ours (Guillermou, Kashiwara and me) and finally I will mention some open problems of the microlocal theory of sheaves.

References:

M. Kashiwara and P. Schapira, *Sheaves on Manifolds*, Grundlehren der Math. Wiss. **292** Springer-Verlag (1990).

S. Guillermou, M. Kashiwara and P. Schapira, *Sheaf quantization of Hamiltonian isotopies and applications to non displaceability problems*, [math.arXiv:1005.1517](https://arxiv.org/abs/1005.1517)

D. Tamarkin, *Microlocal conditions for non-displaceability*, [math.arXiv:0809.1584](https://arxiv.org/abs/0809.1584)