

Three lectures on Algebraic Microlocal Analysis

Pierre Schapira

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These three lectures present some fundamental and classical aspects of microlocal analysis. Starting with the Sato's microlocalization functor and the microsupport of sheaves, we then construct a microlocal analogue of the Hochschild homology for sheaves and apply it to recover index theorems for D-modules and elliptic pairs. In the third lecture, we construct the ind-sheaves of temperate and Whitney holomorphic functions and give some applications to the study of irregular holonomic D-modules.

Comments: small corrections, one reference added

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MSC classes: 35A27, 32C38, 16E40

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