PROPERTIES OF SHEAVES IN THE KOHN ALGORITHM

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Abstract: In 1979 Joseph J. Kohn defined ideal sheaves of multipliers and an algorithm for producing these in order to investigate the subellipticity of the $\overline{\partial}$ -Neumann problem on pseudoconvex domains in \mathbb{C}^n . I will be discussing the properties of these sheaves in the cases when the boundary is smooth, real-analytic, and Denjoy-Carleman. I will show that in the smooth case these ideal sheaves are quasi-flasque, and I will discuss coherence in the real-analytic case. The Denjoy-Carleman case is intermediate between the two, and I will show to what extent the nice properties of the real-analytic case transfer over.