

On support theorems for X-Ray transform with incomplete data

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Abstract

The choice of n -dimensional family of lines is very important part of the X-ray transform inverse problem with incomplete data. We will discuss the notion of *admissible* line complex, introduced by I. M. Gel'fand's team for complex integral geometry, it's relation with microlocal analysis and support theorems for X-ray transforms. Specifically, we will take a look onto Boman-Quinto support theorems for Radon transforms on real analytic line complexes in three-space and investigate ways to generalize this theorems for higher dimensions.