

Mathematical Problems of Tomography

I. M. GELFAND

S. G. GINDIKIN, Editors



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ABSTRACT. Papers in the book cover various mathematical problems arising from and related to computerized tomography. The main idea unifying all the approaches in the book is that these mathematical problems satisfy strong requirements imposed by practical applications of computerized tomography: reconstruction of nonsmooth function is studied, pointwise convergence is used, and discretization in computational algorithms is taken into account.

The mathematical areas discussed include integral geometry; theory of several complex variables; theory of distributions; integral transformations; and applications to reconstruction of biological objects and to mathematical economics.

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