

SOME MATHEMATICAL PROBLEMS RELATED TO MEDICAL IMAGING

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We will discuss a basic model for tomography which mathematically is given by the X -ray transform. We will discuss properties of this transform and inversion formulas in detail. We will also discuss some properties of thermoacoustic tomography, which basically consists of the spherical Radon transform. A good knowledge of advanced Calculus is the only pre-requisite of this course, and therefore it is accessible to undergraduate students.

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