

MATHEMATICAL METHODS OF
COMPUTED TOMOGRAPHY

*Dedicated to the memory of
Leon Ehrenpreis and Iosif Shneiberg
great mathematicians and human beings*

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Chapter 1

A brief outline of the lectures

lectures	topic
1	Introduction: meaning and history of X-ray tomography and Radon transform.
2-3	X-ray CT and X-ray/Radon transform
4	Emission tomography
5	Microlocal analysis in tomography
6-7	MRI, EIT, OT, etc.
7-8	Thermo-/photo- acoustic tomography)
9	Ultrasound modulated EIT and OT
10	Miscellanea: John's equation, 3D CT, κ -operator, MRE, SAR, etc.

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