962-42-1032 **Simon Gindikin*** (gindikin@math.rutgers.edu), Department of Mathematics, Rutgers University, Piscataway, NJ 08854. *Complex Radon type transforms in real problems of integral geometry.*

Real problems of integral geometry are more complicate than corresponding complex problems. There are nonlocal inversion formulas in them and often there is a nontrivial kernel. The most important example is the horospherical transform on real semisimple Lie groups. We show on examples that a complex version of real ransforms gives a possibility to inverse them. (Received October 01, 2000)