1037-44-86 **Yutaka Matsui*** (you317@ms.u-tokyo.ac.jp), 3-8-1, Komaba, Meguro-ku, Tokyo, 1538914, Japan. *Inversion formulas for topological Radon transforms on Grassmann manifolds.*

Topological Radon transforms of subanalytically constructible functions are defined by taking the topological Euler characteristics of hyperplane sections of subanalytic sets. We study topological Radon transforms of constructible functions on projective spaces or Grassmann manifolds by using the combinatorial Schubert calculus and the microlocal theory of sheaves developed by Kashiwara-Schapira. In particular, we will talk about their inversion formulas. (Received January 23, 2008)