1012-42-127 **Gestur Olafsson*** (`olafsson@math.lsu.edu`), Department of Mathematics, Louisiana State University, Baton Rouge, LA 70803, and **Boris Rubin** and **Elena Ournycheva**. *Wavelets and Radon Transform.*

We will discuss how wavelets on invariant cones can be used to invert the Radon transform on the space of n by m matrices. (Received September 16, 2005)