1016-49-304   **Stanislav Hencl**, **Pekka Koskela** and **Jani Onninen*** (`jkonnine@syr.edu`), Syracuse University, Mathematics Department, 215 Carnegie Hall, Syracuse, NY 13244. *Regularity of the Inverse of Homeomorphism Sobolev Mappings.*

In this talk we address the following basic questions. 1) Is the inverse of a weakly differentiable homeomorphism more regular than the inverse of an arbitrary homeomorphism? 2) Under which condition can we conclude that the inverse has a finite n-harmonic energy? Also, we will provide motivations for these questions. (Received February 14, 2006)