1025-00-145   **Dariush Ehsani*** (`ehsani@psu.edu`), Dept of Math, Penn State - Lehigh Valley, 8380 Mohr Lane, Fogelsville, PA 18051. *The $\bar{\partial}$-problem on non-smooth domains.*

We discuss the canonical solution operator to the $\bar{\partial}$-problem on non-smooth domains. We look at cases in which we can exhaust the domain by smooth strictly pseudoconvex domains and use integral representations to obtain C^k estimates of the canonical solution to the $\bar{\partial}$-problem. The examples we look at are the bi-disk and Henkin-Leiterer domains, strictly pseudoconvex domains with vanishing gradient of the defining function. (Received January 21, 2007)