

Meeting: 1004, Bowling Green, Kentucky, SS 12A, Special Session on Partial Differential Equations and Their Applications

1004-35-46 **John L Lewis*** (john@ms.uky.edu), Mathematics Department, University of Kentucky, 7 th Floor Patterson Office Tower, Lexington, KY 40502, and **Andrew L Vogel** (alvogel@syr.edu), Mathematics Department, Syracuse University, Syracuse, NY 13244. *Uniqueness in a Free Boundary Problem.*

We study overdetermined boundary conditions for positive solutions to the p Laplacian in a bounded domain D . We show these conditions imply uniqueness in certain free boundary problems. (Received January 11, 2005)