1125-VH-2948   **Vani Cheruvu*** (`vani.cheruvu@utoledo.edu`), Department of Mathematics and Statistics, The University of Toledo, Toledo, OH 43606. *Wavelet Regularization for Numerical Solution of Laplace equation in an arbitrary shaped domain.*

Interior Dirichlet problem for the Laplace equation in an arbitrary shaped domain is considered. Analytic continuation is used to embed the given domain into a circular domain resulting in an inverse problem. The ill-conditioning associated with the inverse problem is dealt with wavelet regularization. In this talk, we present the idea and conclude with numerical results. (Received September 20, 2016)