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Y J Lee* (leeyeonju08@gmail.com), Daejeon, South Korea, and **Y C Hon.** *Kernels method for solving inverse doping profile problem.*

In this talk we present a new meshless computational method by using special kernels for solving an inverse doping profile problem. Based on the use of fundamental solutions as special kernels, we successfully identify the unknown doped domains from incomplete Dirichlet and Neumann data given on part of the boundary. The uniqueness and stability results for the inverse doping profile problem will also be discussed. (Received December 13, 2011)