Yuliya Gorb* (gorb@math.uh.edu), Department of Mathematics, University of Houston, Houston, TX 77204, and Lilliana Borcea and Yingpei Wang. Discrete Network Approximation for Dirichlet-to-Neumann Map for High Contrast Problems.

A model of a composite material consisting of a matrix of finite conductivity with ideally conducting almost touching particles is considered, and a discrete network approximation for the Dirichlet-to-Neumann map is constructed and justified. (Received September 25, 2012)