1086-35-2849 **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)