1141-65-255 **Lise-Marie Imbert-Gerard***, lmig@math.umd.edu, and **Felipe Vico**, **Leslie Greengard** and **Miguel Ferrando**. *Integral equation methods for electrostatics, acoustics and electromagnetics in smoothly varying, anisotropic media.*

Our goal is to develop integral equation based numerical methods for the solution of electrostatic, acoustic or electromagnetic scattering problems involving anisotropic, inhomogeneous media. We will present a collection of well-conditioned integral equation formulations and will illustrate their performance using iterative solution methods coupled with an FFT-based technique to discretize and apply the relevant integral operators. (Received July 31, 2018)