

1135-35-2178

Daniel Onofrei* (onofrei@math.uh.edu), University of Houston, Dept. of Mathematics, 4800 Calhoun Road, 641 Philip G. Hoffman Hall, Houston, TX 77294-3008, and **Eric Platt.** *Field Control Through Manipulation of Surface Sources.*

In this talk we will discuss our past and recent results regarding the problem of acoustic and electromagnetic field manipulation with the help of active sources situated on exterior surfaces. We will first present a series of smooth scalar control results for the Helmholtz equation and based on these results we will describe our strategy for electromagnetic field control. Applications to scattering cancellation, field synthesis (in free space and waveguides) and inverse source problems will be discussed as well. (Received September 25, 2017)