

1145-35-2734

**Eric Brian Platt\*** (eplatt@math.uh.edu), 5415 Scott St, Apt 1, Houston, TX 77021-1553. *On the active control of Helmholtz Fields on mutually disjoint exterior domains.*

By use of the Morozov-Tychonov regularization method density patterns on a radiating source can be found such that the generated field matches a desired pattern in on region of space while leaving another region of space mostly unperturbed. Combinations of these generated fields can be used for creating different patterns in the specified exterior mutually disjoint regions. An interesting application to be presented is the case when a desired pattern is produced behind an obscuring region. A time domain simulation performed via a Fourier synthesis will be presented as well. (Received September 25, 2018)