1110-35-275 **Fernando Guevara Vasquez***, 1400 E 155 S RM 233, Salt Lake City, UT 84112, and **Leonid A Kunyansky**. *Directional Active Cloaking for the 2D Helmholtz equation.* Preliminary report.

One way of cloaking or hiding objects from probing waves is to use active sources to cancel out the incident field while radiating little waves. For the 2D Helmholtz equation, this could be achieved by e.g. a few multipolar sources that reproduce (in certain regions) the fields produced by the single and double layer potentials from Green's identities applied to the region inside a closed curve. We show progress towards understanding how restricting the incident fields to plane waves removes the need to consider the whole closed curve. One possible application is to remove the need for having multipolar sources completely surrounding the region to be cloaked. (Received February 23, 2015)