1022-34-62   **Rudi Weikard*** (`rudi@math.uab.edu`), Department of Mathematics, University of Alabama at Birmingham, Birmingham, AL 35294-1170. *On the stability of the inverse resonance problem.* Preliminary report.

Marchenko's inverse scattering theorem implies that a compactly supported potential on a half-line is uniquely determined by the location of its eigenvalues and resonances (with respect to one boundary condition). In a practical setting one can expect only to know a finite number of eigenvalues and resonances. We are investigating here what information about the potential can be obtained from such incomplete data in the case of a discrete half-line Schrödinger operator. This is joint work with Marco Marletta, Cardiff. (Received September 08, 2006)