Victor Isakov* (victor.isakov@wichita.edu), Dept. of Mathematics, Statistics, and Phys., Wichita State University, Wichita, KS 67260-0033. On increasing stability in the inverse source and conductivity problems.

We overview recent results of the speaker partly jointly with J. Cheng, S. Lu (Fudan Univ.), R.-Y. Lai (Univ. of Washington, Seattle), and J.-N. Wang (Taiwan Nation. Univ) concerning improving stability in inverse scattering/source problems for the Helmholtz equation and recovery of the conductivity coefficient in the stationary Maxwell system when frequency in growing. Stability estimates and ideas of their proofs as well as some numerical evidence will be presented. Some of these results are published and some are to be published soon. (Received August 11, 2015)