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Faouzi Triki* (faouzi.triki@univ-grenoble-alpes.fr), LJK -Batiment IMAG Universite Grenoble Alpes, 700 Avenue Centrale, Campus de Saint Martin d'Herès, Grenoble, France, and **Tao Yin** (taoyin89@caltech.edu), Dept. Comp. Math. Sci., California Institute of Technology, 355 S. Holliston Ave., Pasadena, CA 91125. *On the inverse conductivity problem with a single internal measurement.*

In the talk I will present recent results on recovering the conductivity map from a single internal measurement. This inverse problem originated from multi-wave imaging. The objective is to stabilize and improve the resolution in imaging biological tissues. I will first show a stability estimate of Hoelder type without any assumptions on the conductivity map. Then, I will give a convergence result for the reconstruction of the conductivity coefficient using discontinuous Galerkin method (DG). Finally, I will present some numerical results on synthetic data to validate the theoretical approach. (Received September 25, 2018)