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**Michael Capps\*** ([cappsm@rams.colostate.edu](mailto:cappsm@rams.colostate.edu)), Department of Mathematics, 1874 Campus Delivery, Fort Collins, CO 80523. *Sparse conductivity reconstructions from electrical impedance tomography data using complex geometrical optics solutions and prior structural information.*

In many applications of EIT some prior information about the spatial structures of the conductivity distribution is known, and the conductivity is expected to be piecewise constant. Here a fast method of reconstructing such sparse conductivity distributions from the CGO solutions is presented. Results are presented for several types of experimental data. (Received September 26, 2017)