

1135-35-3206      **Alexandru Tamasan\*** ([tamasan@math.ucf.edu](mailto:tamasan@math.ucf.edu)), Department of Mathematics, 4000 Central Florida Blvd., Orlando, FL 32816, and **Alexander Timonov** ([atminonov@uscupstate.edu](mailto:atminonov@uscupstate.edu)), Division of Mathematics and Computer Science, 800 Univ. Way, Spartanburg, SC 29302. *Current density impedance imaging without boundary information*. Preliminary report.

We consider the inverse problem of recovering the electrical conductivity of a body from interior measurements of the magnitude of the current density field. Mathematically, we need to solve a boundary value problem for the 1-Laplacian with Complete Electrode Model (CEM) boundary conditions. This problem has nonunique solutions. We presented the analysis of a regularized method which recovers an approximate conductivity with a given precision. (Received September 27, 2017)