1135-00-1269 **Maria-Jesus Munoz-Lopez***, munoz172@umn.edu, and **Pedro Caro**, **Luca Gerardo-Giorda** and **Andoni Garcia**. *Numerical Reconstruction for Electrical Impedance Tomography.*

Electrical impedance tomography (EIT) refers to a non-invasive medical imaging technique in which the electrical properties of conductive tissues are inferred from surface electrode measurements. This technique is commonly modeled by the inverse Calderon problem. This is a mathematical problem, which consists of reconstructing the coefficient of the conductivity equation in a domain from the knowledge of a set of its measurements on the boundary. Ideally, these measurements determine the Dirichlet-to-Neumann map and, therefore, one usually assumes the data to be given by such a map. This situation corresponds to having access to infinite-precision measurements, which is unrealistic. We check numerically the theoretical results of Caro and Garcia (2017), where the Calderon problem is studied assuming the data to contain measurement errors, and formulas are provided to reconstruct the conductivity and its normal derivative on the surface. (Received September 20, 2017)