

**NUMERICAL SIMULATION OF MECHANICAL AND
ELECTRICAL TESTS TO DETECT THE SIZE OF BURIED
INCLUSIONS**

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ABSTRACT. The problem of detecting buried inclusions in a body is considered. Size estimates of the inclusions are derived from traction and displacement measurements taken at the boundary. In order to show the effectiveness of the so-called size estimates approach mechanical and electrical boundary data for 2D and 3D problems are considered. Several numerical simulations were performed in order to show the sensitivity of the size estimate approach with respect to various relevant parameters.

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