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Inverse problems for elliptic PDEs, analysis and applications

**Laplacian Transport for Absorbing Domains and Inverse Problem**  
**Le transport laplacien dans domaines absorbantes et problème inverse**

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**Abstract:** We study (stationary) Laplacian transport by the Dirichlet-to-Neumann formalism. Our results concerns a *formal* solution of the *geometrical* inverse problem for localisation and reconstruction of the form of absorbing domains. Here we restrict our analysis to the two-dimension case. We show that it can be studied by the conformal mapping technique. To illustrate it we scrutinize constant boundary conditions and analyse a numeric example.