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*Detecting Interfaces in a Parabolic-Elliptic Problem.*

The detection of conducting objects in a non-conducting domain by low-frequency electromagnetic waves and the detection of objects with a high heat capacity in a domain with low heat capacity by thermal measurements both lead to an inverse parabolic-elliptic problem. We show how this problem can be solved by an adaptation of the so-called Factorization Method. (Received September 21, 2006)