

Evolution strategies for shape reconstruction in microwave medical imaging

Oliver Dorn, *Universidad Carlos III de Madrid, Spain*

Abstract

We discuss different evolution strategies which have the aim to reconstruct shape-like parameter distributions in tissue (e.g. ellipsoids describing tumours) from electromagnetic boundary data in the microwave regime. In particular, we will discuss level set based reconstruction strategies. A special emphasis will be on the selection of the frequencies which are used for the inversion and their influence on the resulting shape evolution.

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