



MAFIA - the seminar you can't refuse

An inverse problem in electromagnetism with partial data

Marco Marletta

Cardiff University

October 9, 2018

13:15–14:15

in T115/C

Fakulta jaderná a fyzikálně inženýrská ČVUT
Trojanova 13, 12000 Praha

Abstract: We show that the permeability, permittivity and conductivity in a body are uniquely determined by surface measurements of the tangential components of the electric and magnetic fields satisfying the time-harmonic Maxwell equations, on any subset of the boundary which contains an open set. This generalises earlier results of other authors which required measurements to be made everywhere on the boundary.

This is joint work with Malcolm Brown and Pedro Caro and is part of a joint project with Paul Ledger at Swansea University School of Engineering.