Inverse problems for time-harmonic Maxwell's equations: what is known, and what remains to be done.

These lectures are meant to be an introduction to inverse boundary value problems for Maxwell's equations. The main difficulties in generalizing the results known for the analogous problem in electrostatics, i.e. *Calderón's problem*, arise from the nonellipticity of Maxwell–system. One way of overcoming some of these problems is to use a Dirac–type augmented system, and this is one of the things I hope to explain.

The contents are:

- **Lecture 1.** The correct boundary data, and formulation of the inverse problem.
- **Lecture 2.** A review of Calderón's problem
- **Lecture 3.** CGO–solutions for Maxwell's equations
- **Lecture 4.** Determination of parameters
- **Lecture 5.** What needs to be done

Please note that this is just the plan, and probably the actual course will turnout different. Also, I'm happy to spend more time on questions that the audience finds more interesting.