

Review of possible approaches to electromagnetic cloaking of objects

Sergei Tretyakov

Department of Radio Science and Engineering / SMARAD Center of Excellence
Helsinki University of Technology (TKK)
P.O. Box 3000, FI-02015 TKK, Finland
email: sergei.tretyakov@tkk.fi

Abstract

In this lecture we will present an overview of various techniques allowing to reduce “visibility” of objects probed by external electromagnetic radiation, and outline differences and similarities between stealth, invisibility, and cloaking. We will give a comparative historical overview of different approaches towards the goal of making objects “invisible” with respect to light or microwave radiation. Furthermore, the talk will present some latest results on electromagnetic cloaking achieved at our Department and outline perspectives for future research and applications.