

1035-35-1241

Günther Uhlmann* (gunther@math.washington.edu), Department of Mathematics UW, Box 354350, Seattle, WA 98195, and **Allan Greenleaf, Yaroslav Kurylev** and **Matti Lassas**.

Invisibility.

We will describe recent theoretical and experimental progress on making objects invisible to electromagnetic waves. The geometry of Maxwell's equations allow for transformation laws that allow for design of electromagnetic parameters that would steer light around a hidden region, returning it to its original path on the far side. Not only would observers be unaware of the contents of the hidden region, they would not even be aware that something was hidden. The object would have no shadow. New advances in metamaterials have given some experimental evidence that this is indeed possible in practice. (Received September 19, 2007)