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Numerical Simulation of the Space-Time Cloak. Preliminary report.

In this work, we present a numerical method for solving the Maxwell's equations in bi-isotropic media. We utilize a dual grid FDTD method to provide a stable approach for the simulation of the bi-isotropic media with time and space varying permittivity, permeability and coupling coefficients. Our method is applied to simulate the space time cloak proposed by Martin W McCall et al [*J. Opt.* 13, 024003, 2011]. (Received September 17, 2013)