

Nonlinear Guided Waves and Their Applications

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From Maxwell's Equations to Helmholtz Solitons

P. Chamorro-Posada and G.S. McDonald

Abstract

We analyse the propagation properties of Helmholtz solitons numerically solving the 2D Maxwell's equations. The results support previous Helmholtz work and permit to extend the analysis to new problems. In particular, we address the propagation properties of sub-wavelength TE solitons.