

VII Leopoldo García-Colín Mexican Meeting on Mathematical and Experimental Physics



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RUTH DIAMANT: Photonic Crystals in the Amplitude and Phase Representation

Thursday, 20 February 2020 16:30 (30 minutes)

We use a classical optics approach to obtain the Bloch functions for several one-dimensional photonic crystals. To accomplish this, we choose the amplitude and phase representation, which leads us to a new procedure. These Bloch functions are based on numerical solutions to the field's amplitude equation, letting the refractive index vary continuously and periodically along one direction. Band gaps are found in the process too. Some interesting differences between electron and electromagnetic wave behavior are pointed out.

Session Classification: SHORT TALKS

Track Classification: SYMPOSIUM ON SCATTERING, QUANTUM AND CLASSICAL TRANSPORT