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A Non-Perturbative Series Solution for Diffraction Gratings with Arbitrary Profiles¹ DANIEL NKEMZI, University of Buea, Cameroon, PRABASAJ PAUL, Denison University — In this work, we use a boundary continuation technique to obtain an iterative series expansion for the scattering of a plane wave by a diffraction grating with an arbitrary profile function. The method is efficient and is simple to apply. The results of numerical experiments show excellent agreement with the C-method and the coupled-wave approach.

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