

# Abstracts

## Reflection of Electromagnetic Waves from Rough Waveguides (Short Papers)

---

*R. Garcia-Molina, J. Ruiz, R. Chicon, M. Ortuno and J.M.F. Gunn. "Reflection of Electromagnetic Waves from Rough Waveguides (Short Papers)." 1990 Transactions on Microwave Theory and Techniques 38.4 (Apr. 1990 [T-MTT]): 445-448.*

The reflection coefficient of a section of randomly rough waveguide is calculated by using a coordinate transformation developed by Mallick and Sanyal. We perform a perturbation analysis, assuming that the amplitude of the roughness is small compared to the average width of the waveguide. A drastic difference at long wavelengths between TEM on the one hand and TE and TM on the other has been found.

[Return to main document.](#)