

BENEMÉRITA UNIVERSIDAD AUTÓNOMA DE PUEBLA



INSTITUTO DE FÍSICA
“Luis Rivera Terrazas”

SEMINARIO EXTRAORDINARIO
“DR. JESUS REYES CORONA”



“Experimental and Theoretical Study of Bound States in Sharply Bent Waveguides”

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Darmstadt Technische Universität

Quantum wires and electromagnetic waveguides are known to possess common features since their physics is described by the same mathematical equation. We exploit this analogy to investigate experimentally and theoretically the occurrence of bound states in sharply bent quantum wires using microwave waveguides. Furthermore, the features of the transition from bound to unbound states caused by the variation of a parameter, the bending angle is studied. A theoretical approach previously proposed by us is applied to compute the bound states and the critical bending angles at which respectively one of the states undergoes a transition from bound to unbound. The predictions are confirmed by numerical calculations as well as experimental measurements of the spectra and electric field intensity distributions of electromagnetic waveguides.

Auditorio-IFUAP

Viernes 24 de Agosto 2012

17:00 Hrs.