

Extraordinary optical transmission: Surface modes and localized resonances

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Extraordinary optical transmission (EOT) is an optical phenomenon in which a structure, containing subwavelength apertures in an opaque screen, transmits more light than might naively be expected on the basis of either ray optics or even knowledge of the transmission through individual apertures.

This phenomenon, discovered for two-dimensional 2D arrays of holes in metals in 1998, has attracted a great deal of attention, due both to its fundamental character and the numerous applications.

In this talk we present a review of the main physical processes leading to EOT, concentrating on the role of surface modes and localized resonances (already present in isolated apertures).

Special Time and Place

11:00 am, Monday, June 7, 2010

Wilmot 116

Refreshments provided.