

## Colloquium



# Rays and Waves



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In this talk, an overview is given of the many ways in which the ray and wave models can be related.



3:00 pm, Monday, Dec 7, 2009 Sloan Auditorium, Goergen Hall Refreshments Served

### **Rays and Waves**

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#### **Abstract:**

While the ray model is outdated as a physical theory, it is still an extremely valuable design and modeling tool. It is therefore important to know the limits of its validity as well as its connection to the more physical wave framework. Its importance is partly due to the fact that it corresponds to a limiting case of the wave theory in several situations, including those of short wavelength, paraxial propagation, and statistical incoherence. Accurate wave field estimations can result from the ray model if a suitable framework is employed. In this talk, an overview is given of the many ways in which the ray and wave models can be related.

#### Biography:

1990 Engineer in Physics, Universidad Autonoma Metropolitana, Mexico City

1992 Worked as optical cable engineer in Condumex (cable manufacturer), Queretaro.

1996 PhD in Optics, UR

1997-1999 Postdoc at Macquarie University with Greg Forbes

2000-2003 Centro de Ciencias Fisicas, Universidad Nacional Autonoma de Mexico (UNAM), Cuernavaca.

2003-2007 Assistant prof. UR

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