

**Department of Applied Mathematics and Statistics
The Johns Hopkins University**

SEMINAR

John R. Klauder
Departments of Physics and Mathematics
University of Florida

March 10, 2005
304 Whitehead Hall
Refreshments: 3:30 p.m.
Seminar: 4:00 p.m.

SIGNAL TRANSMISSION IN PASSIVE MEDIA

ABSTRACT

Signals that can penetrate certain objects have multiple uses. Under rather general assumptions, and in a relatively simple and straightforward manner, it is shown that the characteristics of signals which travel through homogeneous, as well as inhomogeneous, passive media have the principal features usually associated with the phenomena of precursors, as generally follows from more elaborate studies. The simplicity of the present arguments permit analytic studies to be made for a greater variety of media than is normally the case.