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ELECTROMAGNETIC EIGENMODES OF  
PARITY-TIME SYMMETRIC PERIODIC  
MATERIALS CHARACTERIZED USING  
HEESH-SHUBNIKOV GROUP THEORY

Tuesday, March 26, 4:00 pm - 5:00 pm  
Pearce Hall, Room 227

In the past twenty years, it has been recognized that physical systems possessing balanced regions of wave absorption and amplification possess interesting mathematical and physical properties. This presentation will discuss these properties within the context of electromagnetics. I will begin with a brief overview of electricity and magnetism. A mathematical description of absorption and amplification of electromagnetic waves will follow. The concept of balanced absorption and amplification will then be discussed in the context of Parity-Time symmetry, and it will be shown how group theory techniques that incorporate both spatial and color symmetry can be used to understand and predict the behavior of complicated Parity-Time symmetric electromagnetic systems.