

Department of Mathematical Sciences Colloquium

Walt BALES

Department of Mathematical Sciences, UTEP

FINANCIAL MATHEMATICS VALUATION OF DERIVATIVE SECURITIES

An introduction to boundary value problems for the heat operator will focus on the Dirichlet and Neumann problems. Partial differential equations as free boundary problems will then be discussed. Following an overview of the basic financial principles of derivative securities, a derivation of the Black-Scholes formulae will be given. This will then be extended to modeling the American Put option as a free boundary problem and a method of solution close to expiry will be investigated.

**Friday, May 1, 2009 at 3pm in Bell Hall 143
The University of Texas at El Paso**

Refreshments will be served in front of the colloquium room,
15 minutes before the start of the colloquium.

For further information, please contact Dr. Andrzej Pownuk, Bell Hall 201.
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