

THE THOMAS L. PIRNOT
LECTURE IN MATHEMATICS

3:30 P.M.

APRIL 15, 2008

BOEHM HALL 260

*A Weierstrass Quartet:
Four Ideas from the Father of Modern
Analysis*

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ABSTRACT

The talk will examine four Weierstrass ideas and discuss briefly where in mathematics each idea might lead. They are: (1) the construction of an everywhere continuous, nowhere differentiable function which takes many of us away from real analysis and leads some of us to Brownian motion, fractals, chaos, or wavelets. (2) The Approximation Theorem which is the foundation of modern approximation theory and connects this subject with both probability theory and the theory of summability. (3) "There is nothing but power series" - a statement and a theory which reduces complex analysis to a kind of high-toned arithmetic. (4) "A mathematician who is not also something of a poet will never be a complete mathematician" - a philosophy that yields both a model for mathematics and a way of teaching.

3:00 p.m.

refreshments served

3:30 p.m.

talk begins