TEMPLE UNIVERSITY MATHEMATICS COLLOQUIUM

Michael Minion

University of North Carolina

will speak on

Multirate Time Integration for PDEs

ABSTRACT:

This talk will discuss temporal integration schemes based on a deferred correction strategy which are designed to provide higher-order accuracy for ordinary or partial differential equations with multiple disparate time scales. These integration schemes allow one in principle to design methods with arbitrarily high order of accuracy, while treating different terms in the equation independently, either implicitly or explicitly, and with differing time steps. I will present a general overview of these methods, give examples of successful applications, and discuss promising current and future research directions.

MONDAY, 7 APRIL 2008

LECTURE AT 4:00 PM

COFFEE, TEA, AND REFRESHMENTS FROM 3-5 PM

ROOM 617, WACHMAN BUILDING

DEPARTMENT OF MATHEMATICS