Numerical Analysis and Scientific Computing Seminar

Differential Approximations of the Radiative Transport Equation

Qiwei Sheng

The University of Iowa

Abstract: Abstract: The radiative transport equation (RTE) arises in a variety range of applications in sciences and engineering. It is challenging to solve RTE numerically due to its integro-differential form and high dimension. For highly forward-peaked media, it is even more difficult to solve RTE since accurate numerical solutions require a high resolution of the direction variable, leading to prohibitively large amount of computations. For this reason, various approximations of RTE have been proposed in the literature. This talk is devoted to the introduction and analysis of a family of differential approximations of the RTE.

Thursday, April 18, 2013, 2:00 pm

Mathematics and Science Center: E408

Mathematics and Computer Science
Emory University