1056-65-691   **Ishani Roy*** (`iroy@dam.brown.edu`), Brown University, Box F, Division of Applied Mathematics, Providence, RI 02912, and **Wen Xu**, **Jing-Mei Qiu**, **Chi-Wang Shu** and **Li-Zhi Fang**. *A higher order WENO algorithm to solve radiative transfer of photons in the 'early universe'.*

This talk will present the analysis and computation of a certain high order numerical scheme used in computational Cosmology. The algorithm is based on the weighted essentially non-oscillatory (WENO) scheme for Boltzmann-like integral differential equations. The numerical method will be illustrated with a particular application in Astrophysics that defines the transfer of photons by Hydrogen gas during the formation of the first stars in 'Early Universe'. (Received September 15, 2009)