1106-65-2065 **Joseph Eichholz*** (eichholz@rose-hulman.edu). *An adaptive method for the fast numerical solution for the radiative transport equation.*

The radiative transport equation is a hyperbolic integro-differential equation with applications in heat transfer, atmospheric physics, and medical imaging, to name a few. In many applications high dimensionality and tight coupling between angular and spatial variables make the problem quite challenging to solve using existing numerical methods. In this talk we introduce two new error a-posteriori error estimates for numerical approximations to solutions of the RTE. We subsequently derive an adaptive method and demonstrate its effectiveness in cases of practical interest. (Received September 15, 2014)