

Meeting: 1003, Atlanta, Georgia, SS 27A, AMS-SIAM Special Session on Analysis and Applications in Nonlinear Partial Differential Equations, I

1003-35-133 **Nicolae Tarfulea*** (nicolae@math.umn.edu), School of Mathematics, University of Minnesota, 127 Vincent Hall, 206 Church St. S.E., Minneapolis, MN 55455. *Constraint-Preserving Boundary Conditions for Some Hyperbolic Systems of Differential Equations.*

We indicate a technique of finding well-posed constraint-preserving boundary conditions for some constrained hyperbolic systems. By using this technique, we provide boundary conditions consistent with the constraints for some constrained hyperbolic systems, including a new first order symmetric hyperbolic formulation of Einstein's equations. This is a joint work with Prof. Douglas N. Arnold (IMA University of Minnesota). (Received August 10, 2004)