## Reduction Procedure and Generalized Simple Waves for Systems Written in the Riemann Variables.

N. Manganaro\* & S. Meleshko\*\*

Department of Mathematics, University of Messina
Contrada Papardo, Salita Sperone 31
98166 Vill. Sant'Agata, Messina, Italy.
e-mail: nat@mat520.unime.it

\*\*School of Mathematics, Suranaree University of Technology,
Nakhon Ratchasima, 30000, Thailand
e-mail: sergey@math.sut.ac.th

## Abstract

In the manuscript the method of differential constraints is applied for systems written in the Riemann variables. We studied generalized simple waves. This class of solutions can be obtained by integrating a system of ordinary differential equations. Two models from continuum mechanics are studied: traffic flow and rate-type models.