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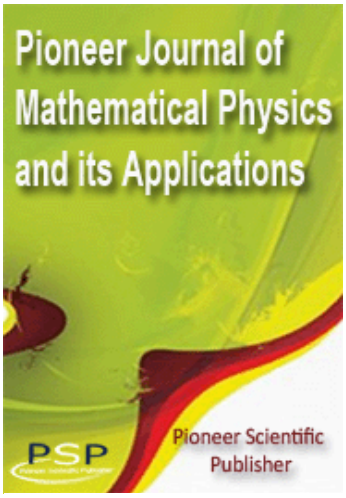

METHOD OF LAGRANGE-GALERKIN FOR THE DENSITIES OF A SYSTEM RIGID FLUID INTERACTION

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Abstract

In this paper, I consider the case where the densities of the fluid and the rigid body are equal, i.e., $\rho_f = \rho_s = 1$. It is not about a simplifying hypothesis but actually the evaluations of mistakes gotten rest crucial way on the equality of the densities fluid/rigid. I would come back on this aspect while indicating the difficulties met to call the heterogeneous case $\rho_f \neq \rho_s$ and the necessity to modify the numeric diagram (more precisely to modify the approached characteristic function) to get a result of convergence in the heterogeneous case. The multidimensional analyses of features of the different maillages are proposed.

Keywords and phrases: fluid/rigid, interaction, Lagrange-Galerkin, simulation, analyses multidimensional analyses.