

1071-65-11

**Y M Warnapala, J Pleskunas and R Siegel\*** (rsiegel410@g.rwu.edu). *The Numerical solution of the exterior boundary value problems for the Helmholtz's equation via modified Green's functions approach for the Pseudosphere.* Preliminary report.

We use the global Galerkin method to numerically solve the exterior Neumann and Dirichlet problems for the Helmholtz equation for the Pseudosphere in three dimensions based on Jones' modified integral equation approach. This method was used previously for the Sphere, Perturbation of the Sphere, Ellipsoid and for the Oval of Cassini and good convergence results were obtained. Theoretical and computational details of the method for small values of  $k$  for the pseudosphere will be presented. (Received November 09, 2010)