

The Particle Swarm Optimization approach applied to the Von-Karman equation

World Journal of Modelling and Simulation, Vol. 5 (2009) No. 4, pp. 302-306.

Authors: A. Zerarka , B. Nine.

Abstract

The B-spline method together with the particle swarm optimization (PSO for short) strategy is presented. It is applied to circular thin flexible plates within the context of Von-Karman equations. Our main result shows that the low orders of approximation have been sufficient to build the solutions from the basis functions in a high quality. Comparison of solutions obtained to variational approach with known ones is performed.

Keywords : B-spline, variational, Galerkin, Karman equation, Particle Swarm Optimization

Link <http://www.wjms.org.uk/>