Miryaha, V. A.; Sannikov, A. V.; Petrov, I. B.
Discontinuous Galerkin method for numerical simulation of dynamic processes in solids.
(Russian. English summary) Zbl 1340.74100

Several different problems of the elasticity theory (rheology, acoustics and some other physical problems) are solved by one and the same method – the discontinuous Galerkin’s method. Results and peculiarities of different solutions obtained with the help of high-performance computing systems are discussed.

Reviewer: Sergei Georgievich Zhuravlev (Moskva)

MSC:
74S30 Other numerical methods in solid mechanics (MSC2010)
74R20 Anelastic fracture and damage
74Q05 Hydro- and aero-acoustics
65M60 Finite element, Rayleigh-Ritz and Galerkin methods for initial value and initial-boundary value problems involving PDEs
86A15 Seismology (including tsunami modeling), earthquakes

Keywords: rheology; acoustics; discontinuous Galerkin’s method; high performance computing systems

Full Text: MNR