

1154-65-2454

Andreas C Aristotelous* (aaristotel@wcupa.edu). *Discontinuous Galerkin Finite Element Schemes for Diffuse Interface Models.*

Partial differential equation models based on Cahn-Hilliard type equations will be introduced and numerically solved. Discontinuous Galerkin Finite Element Methods for the numerical solution of the equations will be presented. For the underlined schemes: solvability, energy stability, convergence and error estimates will be established. Simulation results will be provided. (Received September 17, 2019)