The Hong Kong Polytechnic University
Department of Applied Mathematics

Colloquium

Weak Galerkin Method and Its Applications

by

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Abstract

The purpose of this presentation is to introduce basis concepts of the Weak Galerkin (WG) methods and their recent developments including new a posteriori estimators and applications on fluid dynamics.

Weak Galerkin finite element methods are general methods for solving partial differential equations. The WG method is a natural extension of the standard Galerkin finite element method for the function with discontinuity since they have the same weak forms only where classical derivatives are substituted by weakly defined derivatives. Therefore, the weak Galerkin methods have the flexibility of employing discontinuous elements and, at the same time, share the simple formulations of continuous finite element methods.

Date :   26 May, 2017 (Friday)
Time :   2:00p.m. – 3:00p.m.
Venue : TU801, The Hong Kong Polytechnic University

* * *   ALL ARE WELCOME   * * *