

CCE Distinguished Seminar Series in Computational Science and Engineering

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An overview of the development of the HDG methods

Abstract: We provide an overview of the evolution of the so-called hybridizable discontinuous Galerkin (HDG) methods. We motivate the introduction of the methods and describe the main ideas of their development within the framework of steady-state diffusion. We then describe the status of their application to other problems of practical interest. A significant part of this material is joint work with N.C. Nguyen and J. Peraire, from MIT.

Thursday, Oct. 22, 2015

12:00PM; Rm. 37-212

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Host: Pierre Lermusiaux

<http://mseas.mit.edu>

0.62
0.41
0.21
min 2

$$\frac{\partial \phi_i}{\partial t} + \mathbf{u} \cdot \nabla \phi_i$$

Zooplankton

Measurement
Model/Errors

Dynamical
Model/Errors

Data Assimilation

Adaptive
Model

Global Estimates

Stoch. Coef. 2

Stoch. Coef. 4

Temp.
Fcst.

(dB)

Reivers
(A)

Loss

40

Chl.
Fcst.

MIT