

2018/2019 Seminar Series

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**Computer
Science**

High-Order Convergence of SDC Methods on General Quadrature Nodes

Presenter: Xiaobo Yin

**Associate Professor
School of Mathematics and Statistics,
Central China Normal University, China**

In this talk, I will give you a brief review for our recent work on a new SDC method on general quadrature nodes. To make the idea more clear, I would first introduce the concepts of CDC and SDC methods, respectively. Then the convergence analysis for the SDC method will be given where you can find why the SDC method on non-uniform grids can only improve the convergence rates by only one order even high-order integrators are used in each correction step. Based on this observation, the new SDC method with high-order integrators on non-uniform grids will be given which yields full convergence order improvement. Finally, high-order of accuracy will be numerically demonstrated. This work is cooperated with Prof. Tao Tang and Hehu Xie.

ALL STUDENTS ARE ENCOURAGED TO ATTEND

**Thursday, November 29th @ 3:30PM
Gillin Hall, Room C122**