FUDAN UNIVERSITY

Applied Math Ph.D. Seminar

Analysis of Billion-order Structured Linear System in Flat Panel Display Simulation

Speaker: Chengtao An (Fudan University)

Time: 2023-12-14, 16:10 to 17:00

Location: Rm 1801, Guanghua East Tower

Advisor: Yangfeng Su (Fudan University)

Abstract: In this presentation, we focus on the matrix computation problems in the power grid analysis of high-resolution flat panel displays (FPD). Throughout the simulation of FPD, we find that the challenge is how to efficiently solve the billion-order bordered multilevel block Toeplitz linear systems. To address this challenge, we first discuss the properties and the solver for multilevel block Toeplitz linear systems. Then, we extend the corresponding results to the case of bordered multilevel block Toeplitz linear systems. Finally, we will conclude all these findings and provide a comprehensive overview of the structured simulation process for FPD.