数学与系统科学研究院

计算数学所网络学术报告

报告人：**Prof. Dr. Carlos Jerez-Hanckes**

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报告题目：

High Order Galerkin Methods for Helmholtz Scattering in Quasi-Periodic Layered Media and Screens

邀请人：　殷涛 副研究员

报告时间：**2021** 年 **10** 月 **14** 日（周四）

上午 **9:00-10:00**

报告工具：**Zoom ID**：（**885 7850 1432**）

密码：**amss**

Abstract:

We present a fast spectral Galerkin scheme for the discretization of boundary integral equations arising from Helmholtz problems in multi-layered periodic structures or gratings as well as in screens. Employing suitably parametrized Fourier basis we rigorously establish the well-posedness of both continuous and discrete problems, and prove super-algebraic error convergence rates for the proposed schemes. Through several numerical examples, we confirm our findings and show performances competitive to those attained via Nyström methods.

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