Numerical Analysis Seminar

Robust finite element method for strain gradient elasticity with homogeneous and heterogeneous media

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Abstract

We shall discuss the finite element method for the strain gradient elasticity model, whose media may be homogeneous or heterogeneous. The robustness of the proposed methods is understood in the sense that the methods converge uniformly with respect to various parameters: the length scale, the Poisson ratio as well as the materials heterogeneity. As the theoretical foundation, we shall also discuss the wellposedness of such models by virtue of various Korn type inequalities and the classical Agmon-Douglis-Nirenberg theory. This is a joint work with Yulei Liao and Sun Xu.

Date:	April 3, 2024 (Wednesday)
Time:	11:00am – 12:00noon
Venue:	ZOOM: https://hku.zoom.us/j/
	Meeting ID: 913 6532 3891
	Password: 310656

All are welcome