



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON APPLIED MATHEMATICS

**Some Computational Mathematics Challenges in
Engineering Applications**

By

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Abstract

In the high-tech engineering applications, computational mathematics is the key to solve many engineering problems. How to transform engineering problems into mathematical problems, how to use computational mathematics tools to solve them, and how to apply solutions to engineering problems to gain benefits are the main contents of our research. This report is based on the construction of a high-performance math library, and by looking at the academic community, the industry and the ourself, and combining with the current trends in mathematics and computer technology. We would discuss and propose some mathematical questions, and some of them will be explained in detail in combination with our previous research work, and the mathematical thinking and difficulties behind these problems will be explained.

Date : 16 September 2022 (Friday)

Time : 11:00am – 12:00nn

Venue : Lecture Theater F (Lifts 25/26)

All are Welcome!