THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

Summer Research Program 2022

STUDENT-FACULTY COLLOQUIUMS

What is Cluster Algebra?

By

Prof. Ivan IP

Abstract

"How do you describe a matrix where the determinant of every submatrix is positive?"

The answer to this simple question has a rich algebraic structure. The theory of Cluster Algebra was introduced in 2000 by Fomin-Zelevinsky to study the above problem of total positivity. This new theory quickly becomes one of the most important research areas in mathematics, which finds applications in representation theory, combinatorics, quantum theory, and mathematical physics.

In this talk, we will discuss several examples which motivate the study of cluster algebra and its useful properties.

Date : 13 July 2022 (Wednesday)
Time : 11:00am
Zoom Meeting : https://hkust.zoom.us/j/97125422094 (Passcode: 071322)

All are Welcome!