### THE UNIVERSITY



#### OF HONG KONG

## Institute of Mathematical Research Department of Mathematics

## GEOMETRY SEMINAR

# From totally sign-skew-symmetric matrix to cluster algebra

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#### **Abstract**

In this talk, I will first introduce totally sign-skew-symmetric matrix, then I will introduce cluster algebra.

Using unfolding method, we will see that every acyclic sign-skew-symmetric matrix is totally sign-skew-symmetric (this is a problem posed by Berenstein Fomin and Zelevinsky in 2005), and positivity for all acyclic cluster algebras. This is a joint work with Fang Li.

Date: January 23, 2019 (Wednesday)

Time: 3:00 - 4:00pm

Venue: Room 210, Run Run Shaw Bldg., HKU