# NCTS

National Center for Theoretical Sciences

# Mini-course on Non-Commutative Geometry

## Time

15:30-17:30, April 17, April 24, April 29, 2024

Room 509 (Main) via WebEx, Cosmology Building, NTU

## Speaker

**Yujiro Kawamata**   University of Tokyo & NCTS
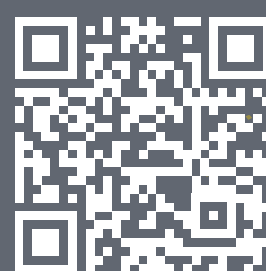
## Organizer

**Jungkai Chen**   National Taiwan University & NCTS

## Course Outline & Descriptions

(1) I will explain deformations of sheaves over non-commutative (NC) base. The point is that there are more NC deformations than usual (C) deformations, and NC deformations yield more invariants. The moduli space of sheaves become larger in the sense that it has additional formal structure.

(2) I will explain deformations of a usual variety, based on commutative algebra, to NC varieties. Though the localizations of NC algebras are usually not possible, the deformations are constructed by gluing NC associative algebras. I will also consider NC deformations of McKay correspondence.

**Registration:**   **More information:**