NCTS
National Center for Theoretical Sciences

SUMMER SCHOOLS
ON
LANGLANDS DUALITY

Time

2024.8.5-9
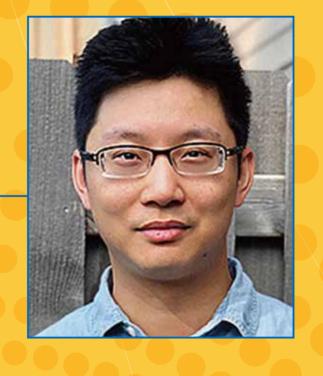13:30-15:00

Registration

Contact
Murphy Yu
murphyyu@ncts.tw

Venue

Room 509,
Cosmology Building,
NTU

Speaker

Tsao-Hsien Chen
University of Minnesota

Organizer

Cheng-Chiang Tsai
Academia Sinica

Outline & Descriptions

This course will give an introduction to geometric Langlands duality. We will begin with local aspect of the theory with emphasis on the geometric Satake equivalence and then discuss the global theory. Topics for the course includes:

8/5	8/6	8/8
Reductive algebraic groups and their representation theory, Langlands dual groups, tannakian formalism.	Classical Satake isomorphism, Kazhdan-Lusztig polynomials	Perverse sheaves and geometric Satake equivalence
	8/7	8/9
	Combinatoric/topology/geometry of affine Grassmannians	Geometric Langlands correspondence on the projective line