

# **Representation theory, gauge theory, and integrable systems**

**Sunday 03 February 2019 - Friday 08 February 2019**

**Lecture Hall(1F), Kavli IPMU**

## **Scientific Programme**

**Invited Speakers**

Andrea Appel: Cohomological construction of quantum symmetric pairs

Mikhail Bershtein: Deatonomization of cluster integrable systems

Sergei Gukov: New TQFTs from DAHA

Tamás Hausel: Intersection of mirror branes on Higgs moduli spaces

Justin Hilburn: Symplectic duality and Langlands duality

Seyed Morteza Hosseini: Five-dimensional topological indices and Bethe ansatz at large  $N$

Hiroaki Kanno: 3d holomorphic blocks from the intertwiner of quantum toroidal algebra

Syu Kato: Frobenius splitting of semi-infinite flag manifolds

Taro Kimura: Geometry of quiver  $W$ -algebra

Michael McBreen: Categorical Hikita duality

Dinakar Muthiah: Toward double affine flag varieties and Grassmannians

Nikita Nekrasov: Some applications of defects in supersymmetric gauge theory

Du Pei: Non-unitary modular categories from the Coulomb branch

Changjian Su: Homology of affine Grassmannian and quantum cohomology

Takuya Okuda: SUSY localization for Coulomb branch operators in 3 and 4 dimensions

Masahito Yamazaki: Discrete Painlevé Equation and Four-dimensional Gauge Theories

Shintaro Yanagida: Hall algebra of sheaves on abelian surfaces

Yaping Yang: Cohomological Hall algebras, vertex algebras and instantons

