제3회 고등과학원 수학부 동문학술상 수상 기념 특별강연

Title & Abstract

2025년 12월 19일(금)

15:30~16:00 기념강연1

박의용 (서울시립대)

Cluster algebras and categorification

A monoidal categorification is a categorical-approach to studying (quantum) cluster algebras from the perspective of monoidal categories. In this talk, I will introduce the notion of monoidal categorifications and explain how Hernandez-Leclerc categories of quantum affine algebras provide a monoidal categorification. If time permits, I will also explain my recent result on monoidal categorification in this direction. This is based on joint work with Masaki Kashiwara, Myungho Kim and Se-jin Oh (arXiv:2509.14552).

16:00~16:30 기념강연2

정인지 (서울대)

Twisting in Hamiltonian flows and long-time behavior of fluids

We prove that twisting in Hamiltonian flows on annular domains, which can be quantified by the differential winding of particles, is stable to time-dependent perturbations of the Hamiltonian. This stability is used to answer several conjectures related to the long-time behavior of two-dimensional fluids.