上智大学数学談話会のお知らせ

（本談話会は情報理工学科・数学領域の共同主催です）

日時：2023年7月21日（金）17:30 – 18:30

場所：上智大学四谷キャンパス4号館3階4-398室

講演者：金久保 有輝 氏（筑波大学）

講演題目：Polyhedral realizations and extended Young diagrams of several classical affine types

講演要旨：The crystal bases are powerful tools for studying the representation theory of quantum groups. By realizing crystal bases as combinatorial objects, one can reveal skeleton structures of representations. Nakashima and Zelevinsky invented 'polyhedral realizations', which are realizations of crystal bases as integer points in some polyhedral convex cones or polytopes. It is a natural problem to find an explicit form of inequalities that define the polyhedral convex cones and polytopes.

In this talk, we will explain an outline of representation theory of Lie algebras and quantum groups and give an explicit form of inequalities in terms of extended Young diagrams in the case the associated Lie algebra is several classical affine type.