

Connection problem of GKZ hypergeometric functions

01.07**Saiei-Jaeyeong Matsubara-Heo***(Kobe University, Japan)***Time:** Wednesday 24.07., 11:30 - 12:00, Room AM

Abstract: GKZ (Gelfand, Kapranov, Zelevinsky) system is a holonomic system which describes classical hypergeometric systems in a unified manner. The study of GKZ system is, as a principle, controlled by the combinatorics of the Newton polytope. A typical manifestation of such a mechanism is the description of a connection problem of GKZ hypergeometric functions between “nearby toric infinities”. It is expected that the resulting connection formulae give a method of computing the monodromy group. In this talk, we formulate the connection problem for series solutions when GKZ system is regular holonomic. We give an explicit connection formula described by combinatorics of regular triangulations of the Newton polytope.