YEDİTEPE UNIVERSITY

Mathematics Department Seminars

Generalized Weyl Algebras, Birational Equivalences and Gelfand-Kirillov Conjecture

Atabey Kaygun

İstanbul Technical University

Abstract: Rank 1 generalized Weyl algebras (GWAs) form an interesting class of algebras that include (quantum) enveloping algebra of $sl(2)$ and some interesting quantum groups of rank 1 and 2. In this talk I will define GWAs and then explain how these examples fit into the framework of GWAs. Birational equivalence, on the other hand, is a tool (commutative) algebraic geometers use quite extensively. Interestingly, GWAs are birationally equivalent to a smash product with a torus of rank 1. Time permitting, I will talk about how all of these relate to Gelfand-Kirillov conjecture.

Date: November 6, 2020; Friday

Time: 17:00

Place: Please contact me for the Google Meet link.