



ODTU-Bilkent Algebraic Geometry

Winding homology of knotoids

By

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Abstract: Knotoids were introduced by Turaev as open-ended knot-type diagrams that generalize knots. Turaev defined a two-variable polynomial invariant of knotoids generalizing the Jones knot polynomial to knotoids. We will give a construction of a triply-graded homological invariant of knotoids categorifying the Turaev polynomial, called the winding homology. Forgetting one of the three gradings gives a generalization of the Khovanov knot homology to knotoids. We will briefly review the basics of the theory of knotoids and also explain the notion of categorification which plays an important role in contemporary knot theory -- no prior knowledge will be assumed.

Date: 18 February 2022, Friday

Time: 15:40 (GMT+3)

Place: Zoom

To request the event link, please send a message to sertoz@bilkent.edu.tr