



ODTU-Bilkent Algebraic Geometry

Stability Conditions I

By

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Abstract: In moduli problems, one usually needs to impose some sort of "stability" on the objects being classified in order to have well-behaved moduli spaces. Generalizing this concept, in 2007, Bridgeland defined "stability conditions" on a triangulated category and proved that, under some mild conditions, the set of stability conditions can be given the structure of a complex manifold. In this three-part series, we shall explore this construction. We shall also give examples of stability conditions when the underlying triangulated category is the derived category of coherent sheaves on a smooth, projective variety.

Reference: Bridgeland, Tom. Stability conditions on triangulated categories. *Ann. of Math.* (2)166(2007), no.2, 317–345.

Date: 29 November 2024, Friday

Time: 15:40 (GMT+3)

Place: Zoom

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