

Boğaziçi MATH COLLOQUIUM

Equivariant Operational Theories and the Localization Principle

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Abstract: For a complete nonsingular variety with a torus action, the localization principle asserts that one can read-off the equivariant K-theory and Chow cohomology of the variety from that of fixed point subscheme, modulo certain relations given by the fixed loci of codimension-one subtori. For singular varieties, however, such method quite often does not apply. Our goal is to show that in the setting of equivariant operational theories there is a version of the localization principle that works perfectly well for both singular and nonsingular varieties. For instance, if X is any complete variety where a torus acts with finitely many fixed points and invariant curves, then the equivariant operational K-theory of X is a ring of piecewise exponential functions (a version of GKM theory). Some relations to Chow cohomology, via the Riemann-Roch theorem, will be discussed too.

Date : Wednesday, March 11, 2020

Time: 13:30

Place: TB 130, Boğaziçi University