

Institut f. Geometrie

**Geometry Seminar**

Wed 24.7.2024 13:45

Seminarraum 2, Kopernikusgasse 24/IV

**The algebraic K-theory of algebraic tori  
via equivariant homotopy theory**

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There is an equivalence of categories between algebraic tori over a field  $F$  and topological tori with an action of the absolute Galois group of  $F$ . We prove that the algebraic K-theory of an algebraic torus coincides with the equivariant homology of the associated topological torus with respect to the homology theory represented by the K-theory of the base field  $F$  and its field extensions. This is joint work in progress with Shachar Carmeli, Qingyuan Bai and Florian Riedel.

(a video on that topic is available from

<https://youtu.be/F3w7tfBF6HA?si=BA6KyXkdtgSY1BvT>)

Jan Jendrysiak