

# THE UNIVERSAL TORIC GENUS

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The universal toric genus is defined on  $T^k$ -equivariant complex cobordism classes and takes values in the complex cobordism algebra of the classifying space of the  $k$ -torus. It was introduced independently by Krichever and Löffler in 1974, and is a version of tom Dieck's bundling transformation of 1970. The universal toric genus is an equivariant analogue of the universal Hirzebruch genus, the identity homomorphism from the ring of complex cobordism to itself. We apply different localisation formulae for the universal toric genus to several problems of toric topology and rigidity of genera. In particular, we show that the Krichever's generalised elliptic genus vanishes on  $SU$ -quasitoric manifolds, and is universal among genera that are rigid on  $SU$ -manifolds. The talk is based on the joint work with Victor Buchstaber and Nigel Ray, arXiv:0807.4800.

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