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Thomas Murphy* (tmurphy@fullerton.edu), CSU Fullerton, Dept. Mathematics, 800 N. State College Blvd, Fullerton, CA 92831. *Bounding the invariant spectrum of toric Kaehler manifolds.*

We generalise a theorem of Engman and Abreu–Freitas which bounds the first invariant eigenvalue of a non-negatively curved T^1 -invariant metric on S^2 to toric Kaehler metrics with non-negative scalar curvature. Bounds for all higher eigenvalues are determined: these can be combinatorially determined from the Delzant Polytope. Similar results in the extremal case are also derived. This is joint work with Stuart Hall. (Received September 10, 2017)