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**Title:** End-periodic  $K$ -homology and positive scalar curvature

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In this talk I will introduce a new variant of  $K$ -homology, called ‘end-periodic  $K$ -homology’, that is tailored to a recent index theorem for end-periodic manifolds by Mrowka, Ruberman and Saveliev. The new  $K$ -homology groups elegantly encapsulate invariance properties of end-periodic rho invariants, and in fact are naturally isomorphic to the standard  $K$ -homology groups. The isomorphism preserves rho invariants, and so can be used to transfer results on positive scalar curvature for odd-dimensional manifolds to even-dimensional manifolds.

This is joint work with Mathai Varghese.