A new K-theoretic invariant for C^*-algebras

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I will introduce a new K-theoretic invariant for C^*-algebras. The invariant is, in particular, computable for large classes of crossed products by endomorphisms $B \rtimes \mathbb{N}$, e.g. whenever B is an AF-algebra, in which case the invariant is essentially the Pimsner–Voiculescu sequence up to a suitable equivalence relation. The invariant can be used to classify large classes of separable, nuclear, purely infinite C^*-algebras A of real rank zero, with all ideals in the UCT class, in particular when A satisfy one of the following: (i) A has finitely many ideal, (ii) $\operatorname{Prim} A$ is Hausdorff, (iii) $A \cong A \otimes \mathcal{Q}$, where $\mathcal{Q}$ is the universal UHF algebra, or (iv) $A \cong B \rtimes \mathbb{N}$ where B is an AF-algebra.