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**GEORGE ELLIOTT**, University of Toronto

*A short essay on the Pimsner-Voiculescu embedding*

In some sense, all embeddings of the irrational rotation  $C^*$ -algebra in an AF algebra are the same—they are approximately unitarily equivalent (since the domain algebra is simple AT with unique trace). In another sense, the original Pimsner-Voiculescu embedding would appear to have special properties, as it would seem to be somewhat rigid, with unusually rapid (summable) convergence of the finite-dimensional approximate embeddings, with these being rigidly specified in terms of the continued fraction expansion. An interesting question, perhaps, is whether this map (although it is not quite uniquely determined) is conjugate to another AF-embedding discovered recently by Zhuang Niu and me, obtained simply by cutting the spectrum of each of the canonical unitary generators (at a single point—in some representation of the algebra). Certainly, not all embeddings are conjugate, whether one looks at the mapping or even just the subalgebra (as for subfactors).