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On *p*-variations of Fourier algebras

This represents joint work, in progress, with H.H. Lee and E. Samei.

Let G be a compact group. I will introduce and discuss a family $A^p(G)$ $(1 \le p \le \infty)$ of Banach function algebras on G. $A^1(G)$ is the classical Fourier algebra of Kreĭn, Stinespring or Eymard. The algebra $A^2(G)$ arose in some computations of the Forrest, Samei and the author. Through operator space interpolation, each of these algebras is equipped with an operator space structure with respect to which it is a completely contractive Banach algebra. I will discuss various functorial properties of these algebras and talk about some amenability properties. In doing so I will exhibit some exotic convolution algebras on sequences.