

1106-46-1785

David P Blecher* (dblecher@math.uh.edu), Department of Mathematics, University of Houston, Houston, TX 77204-3008. *The generalization of C*-algebra methods*. Preliminary report.

With Charles Read we have introduced and studied a new notion of (real) positivity in operator algebras, with an eye to extending certain C*-algebraic results, techniques, and theories to more general algebras. As motivation note that the ‘completely’ real positive maps on C*-algebras or operator systems are precisely the completely positive maps in the usual sense; however with real positivity one may develop a useful order theory for more general operator algebras (and operator spaces). This is intimately connected to new relationships between an operator algebra and the C*-algebra it generates. We report on the state of this theory, which is mostly joint work with Read, and will include new results along these lines joint with Matthew Neal. We emphasize connections with various C*-algebraic techniques initiated by Richard V. Kadison. (Received September 15, 2014)