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Thomas Tonev and **Rebekah Yates*** (ryates@mso.umt.edu). *Norm-Linear and Norm-Additive Operators Between Uniform Algebras.*

Let $A \subset C(X)$ and $B \subset C(Y)$ be uniform algebras with Choquet boundaries δA and δB . A map $T: A \rightarrow B$ is called *norm-linear* if $\|\lambda Tf + \mu Tg\| = \|\lambda f + \mu g\|$, *norm-additive* if $\|Tf + Tg\| = \|f + g\|$, and *norm-additive in modulus* if $\||Tf| + |Tg|\| = \||f| + |g|\|$ for each $\lambda, \mu \in \mathbb{C}$ and all algebra elements f, g . We show that if a surjection $T: A \rightarrow B$ is norm-additive in modulus, then there exists a homeomorphism $\psi: \delta A \rightarrow \delta B$ such that $|(Tf)(y)| = |f(\psi(y))|$ for every $f \in A$ and $y \in \delta B$. We prove that every norm-linear surjection T , not assumed to be linear or continuous, but for which either $T(1) = 1$ and $T(i) = i$ or the peripheral spectra of \mathbb{C} -peaking functions are preserved is a unital isometric algebra isomorphism. We also give sufficient conditions for norm-additive surjections to be unital isometric algebra isomorphisms. In addition, we show that if a surjective norm-preserving linear operator T between two uniform algebras satisfies $T(1) = 1$ and $T(i) = i$ or preserves the peripheral spectra of \mathbb{C} -peaking functions, then it is an isometric algebra isomorphism. (Received March 03, 2009)