1036-46-193 **Krzysztof Jarosz*** (kjarosz@siue.edu), Department of Mathematics, SIUE, Edwardsville, IL 62026. *Noncommutative Stone-Weierstrass Theorem.* Preliminary report.

Let X be a compact spaces, A a real unital Banach algebra and $C(X, A)$ the Banach algebra of all continuous A-valued functions on X. Assume further that $\mathcal{B}$ is a subalgebra of $C(X, A)$ such that

- for any $x_1 \neq x_2 \in X$ there is $f \in \mathcal{B}$ with $f(x_1) \neq f(x_2) = 0$.

The classical Stone-Weierstrass Theorem states that for $A = \mathbb{R}$ the only algebra $\mathcal{B}$ satisfying the condition above is the whole $C(X, A)$. For bigger algebras A, in order to make the same conclusion we obviously have to make an additional assumption

- for any $x \in X$ we have $\{f(x) : f \in \mathcal{B}\} = A$.

We investigate for which real Banach algebras A the conditions above imply $\mathcal{B} = C(X, A)$.

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