1077-46-1604 **Terje Hoim\*** (thoim@fau.edu), Wilkes Honors College, 5353 Parkside Dr., Jupiter, FL 33458, and **David Robbins** (david.robbins@trincoll.edu), Department of Mathematics, 300 Summit St., Hartford, CT 06106. Some hereditary properties of vector-valued functions. Preliminary report.

Let X be a topological space and let  $\{E_x : x \in X\}$  be a collection of Banach algebras indexed by X. Let  $\mathcal{E} = \bigcup_{x \in X} E_x$  be the disjoint union of the  $E_x$ , and let  $\pi : \mathcal{E} \to X$  be the obvious projection. Suppose further that  $\mathcal{F} : X \to \mathcal{E}$  is a space of selections such that  $\mathcal{F}$  is full and  $\mathcal{F}$  is a C(X)-module. Suppose each (or some)  $E_x$  has a certain property  $\mathcal{P}$ . The heredity problem then asks: Does  $\mathcal{F}$  also have  $\mathcal{P}$ ? Conversely, if  $\mathcal{F}$  has a property  $\mathcal{P}$ , do the  $E_x$ 's have it?

Examples of hereditary properties in bundles of Banach spaces include the approximation property and (in some bundles of commutative topological algebras) the spectral synthesis property.

In this paper we investigate the hereditary property of bounded approximate identities for section spaces of bundles of Banach algebras, and then use those results to examine a type of amenability for such section spaces, and how it relates to the amenability of the fibers  $E_x$ . (Received September 20, 2011)