

1116-46-2474

**Julian M Buck\*** (jbuck@fmarion.edu), L402, Department of Mathematics, Francis Marion University, PO Box 100547, Florence, SC 29506. *Classification of Crossed Products Arising From Actions on  $C(X, A)$* . Preliminary report.

We survey some recent work related to the structure of crossed product  $C^*$ -algebras arising from group actions on algebras of the form  $C(X, A)$ , where  $X$  is a compact Hausdorff space and  $A$  is some simple  $C^*$ -algebra. Of particular interest are actions which “lie over” actions on  $X$  in an appropriate sense. Joint work with Aaron Tikuisis, and from a different perspective with Dawn Archey and N. C. Phillips, given conditions under which such crossed products are stable under tensoring with the Jiang-Su algebra  $\mathcal{Z}$ . We discuss under what conditions we might expect such crossed products to be classifiable by the Elliott invariants. We also discuss what can be said in the situations where the crossed product is not  $\mathcal{Z}$ -stable. (Received September 22, 2015)