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**S. Kaliszewski, Magnus B Landstad and John Quigg\*** (quigg@asu.edu). *Tensor-Product Coaction Functors*. Preliminary report.

Baum-Guentner-Willett introduced “exotic crossed products” in an attempt to “fix” the Baum-Connes Conjecture. The exotic crossed products are required to form an exact functor of actions, and are desired to be as small as possible. We have modified the [BGW] program by casting it in terms of coaction functors. One particularly interesting exotic crossed product of [BGW] involves tensoring with a fixed action, and Buss-Echterhoff-Willett showed that the smallest such involves  $\ell^\infty(G)$ . To incorporate this into our coaction-functor program, we need to tensor with a fixed coaction. For this we must restrict to a “ $G$ -balanced tensor product” sitting inside the (maximal) tensor product. We introduce and develop the basic theory of these balanced tensor products, including a crucial technical isomorphism involving crossed products of actions. Our techniques require the group  $G$  to be discrete. We prove versions for coaction functors of the theorems of [BGW] and [BEW], namely, our “tensor coaction functors” are exact, are minimal when tensoring with the crossed product of  $\ell^\infty(G)$ , and reproduce the tensor-crossed-product functors of [BGW] when composed with the full crossed product. This is joint work with Steve Kaliszewski and Magnus Landstad. (Received August 14, 2018)