

ENTROPY FOR AUTOMORPHISMS OF THE CROSSED PRODUCTS OF OPERATOR ALGEBRAS BY EXACT GROUPS

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This is a survey talk of my recent results in [5,6,7] (mainly [7]) about *Entropy* defined in [1,2,3,4] from the point of view of relations between an automorphism and its extension to the crossed product. The main results in [7] are the most general statements that one can expect (from the referee's report).

Reference

- [1] A. Connes and E. Størmer : Entropy of II_1 von Neumann algebras, *Acta Math.*, 134 (1975), 289-306.
- [2] A. Connes H. Narnhofer and W. Thirring : Dynamical entropy of C^* algebras and von Neumann algebras, *Commun. Math. Phys.*, 112 (1987), 691-719.
- [3] D. Voiculescu : Dynamical approximation entropies and topological entropy in operator algebras, *Commun. Math. Phys.*, 170 (1995), 249-281.
- [4] N. Brown : Topological entropy in exact C^* -algebras, *Math. Ann.*, 314 (1999), 347-367.
- [5] M. Choda : Entropy of Crossed Products and Entropy of Free Products, *Journal of Operator Theory*, 48-2(2002), 355-367.
- [6] M. Choda : Dynamical entropy for automorphisms on exact C^* -algebras, *Journal of Functional Analysis*, 198(2003), 481-498.
- [7] M. Choda : Entropy of automorphisms arising from dynamical systems through discrete groups with amenable actions, to appear in *Journal of Functional Analysis*.