

THEMATIC SESSION: Operator Algebras

**Tracially amenable actions**

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Tracially amenable actions of groups on  $C^*$ -algebras are a generalization of amenable actions of groups on  $C^*$ -algebras where the approximations are required to hold in uniform tracial 2-norm rather than the  $C^*$ -norm. The advantage of tracial amenability over amenability is that, while it is easier to produce interesting examples of such actions, we still have powerful structural results about the associated crossed products. In particular, crossed products of tracially amenable actions by non-amenable groups turn out to be purely infinite in many cases. I will discuss the general theory of tracially amenable actions, structural results about their crossed products, as well as a link between tracial amenability and equivariant property (SI). This is joint work with E. Gardella, S. Geffen, P. Naryshkin, and A. Vaccaro.