

Sofic and hyperlinear groups and the logic for metric structures

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Abstract: I will discuss how sofic and hyperlinear groups admit natural characterizations in the framework of logic for metric structures. As an application I will show how one can obtain with model-theoretic tools easier proofs of several fundamental results about sofic and hyperlinear groups, such as Kaplansky's direct finiteness conjecture and the algebraic eigenvalues conjecture for sofic groups, and Kervaire-Laudenbach conjecture for hyperlinear groups.