

Continuous logic and sofic groups

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Continuous Logic and Functional Analysis
(Institut Camille Jordan, Lyon)

Continuous logic has been successfully applied to the study of structures endowed with a (nontrivial) metric, but it can also be useful when dealing with discrete algebraic structures, such as the so called (universal) sofic and hyperlinear groups. In my talk, I will present the main ideas and techniques of the proof, obtained by means of continuous logic, that there are consistently power of the continuum many pairwise non isomorphic universal sofic and hyperlinear groups. This result in the sofic case had already been obtained by Simon Thomas using purely algebraic methods.