

- ANDREA VACCARO, *Games on classifiable C*-algebras*.

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One of the major themes of research in the study of C*-algebras, over the last decades, has been Elliott's program to classify separable nuclear C*-algebras by their tracial and K-theoretic data, customarily represented in the so-called Elliott Invariant. In this talk I will analyze some subclasses of algebras (such as approximately finite C*-algebras) which fall within the scope of Elliott Classification Program from the perspective of infinitary continuous logic. More specifically, I will discuss how the techniques developed to classify nuclear C*-algebras can be combined with metric analogues of Ehrenfeucht–Fraïssé games, allowing to reduce the study of elementary equivalence between C*-algebras to the analogous relation on the discrete structures (groups and ordered groups) composing the Elliott Invariant. I will moreover show how this reduction can be employed to build classes of classifiable C*-algebras of arbitrarily high Scott rank.