

- FRANCESCO PARENTE, *Model-theoretic properties of ultrafilters and universality of forcing extensions.*

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In this talk, I will discuss some recent results at the interface between model theory and set theory. The first part will be concerned with model-theoretic properties of ultrafilters in the context of Keisler's order. I will use the framework of 'separation of variables', recently developed by Malliaris and Shelah, to provide a new characterization of Keisler's order in terms of saturation of Boolean ultrapowers. Furthermore, I will show that good ultrafilters on complete Boolean algebras are precisely the ones which capture the maximum class in Keisler's order, answering a question posed by Benda in 1974.

In the second part of the talk, I will report on joint work with Matteo Viale in which we apply the above results to the study of models of set theory. In particular, our work aims at understanding the universality properties of forcing extensions. To this end, we analyse Boolean ultrapowers of H_{ω_1} in the presence of large cardinals and give a new interpretation of Woodin's absoluteness results in this context.