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## Alpha-Ramsey Theory

Recently, Benci and Di Nasso have introduced a simplified presentation of nonstandard analysis called the Alpha-Theory. Their presentation shows that technical concepts such as ultrafilter, ultrapower, superstructure and the  $*$ -transfer principle are not needed to rigorously develop calculus with infinitesimals. In this talk, we show that the same elementary foundation can be used to develop some infinite dimensional extensions of Ramsey's theorem. The talk will conclude with a discussion of some of applications of the main results.

- [1] Trujillo T., From abstract alpha-Ramsey theory to abstract ultra-Ramsey theory. Preprint (arXiv). (2016)