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Natasha Dobrinen* (natasha.dobrinen@du.edu), Department of Mathematics, University of Denver. *Inner topological Ramsey spaces.*

Topological Ramsey spaces are spaces which satisfy an abstract version of the Ellentuck theorem: Every subset with the property of Baire in the abstract Ellentuck topology is Ramsey. The inherent structure of a topological Ramsey space provides strong machinery for use in investigations of its forcing properties, and partition properties and initial Rudin-Keisler and Tukey structures of its associated ultrafilter. This talk will include a selection of forcings which we have shown actually contain dense subsets which form topological Ramsey spaces, including some creature forcings, and their applications. The proofs that these form topological Ramsey spaces involve proving some new pigeonhole principles.

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