Scheepers, Marion

**Ramsey theory and the Borel conjecture.** (English) Zbl 07314993


Summary: The Borel covering property, introduced a century ago by E. Borel, is intimately connected with Ramsey theory, initiated ninety years ago in an influential paper of F. P. Ramsey. The current state of knowledge about the connection between the Borel covering property and Ramsey theory is outlined in this paper. Initially the connection is established for the situation when the set with the Borel covering property is a proper subset of a \(\sigma\)-compact uniform space. Then the connection is explored for a stronger covering property introduced by Rothberger. After establishing the fact that in this case several landmark Ramseyan theorems are characteristic of this stronger covering property, the case when the space with this stronger covering property is in fact \(\sigma\)-compact is explored.

For the entire collection see [Zbl 1454.03010].

**MSC:**

- 03E02 Partition relations
- 03E05 Other combinatorial set theory
- 05D10 Ramsey theory
- 22A05 Structure of general topological groups
- 54D20 Noncompact covering properties (paracompact, Lindelöf, etc.)
- 54G10 \(P\)-spaces
- 54H11 Topological groups (topological aspects)

**Keywords:**

Ramsey theory; rothberger bounded; strong measure zero; uniformizable space; topological group

**Full Text:** DOI

**References:**


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