

**Feng, Li; Masaveu, Oscar****Exactly  $n$ -resolvable spaces and  $\omega$ -resolvability.** (English) [Zbl 0998.54026](#)

Math. Jap. 50, No. 3, 333-339 (1999).

Summary: We show that any topological space has a decomposition into a union of an open  $\omega$ -resolvable subset and the closure of a countable union of pairwise disjoint open sets each of which, when nonempty, is an  $OE_nR$  space. We present several applications, including characterizations of  $E_nR$  and  $OE_nR$  spaces. We also present the construction of a compact Hausdorff space which is the union of a pair of disjoint irresolvable dense subsets, but which is, nevertheless,  $2^c$ -resolvable. Indeed, the space constructed is card-homogeneous and maximally resolvable in the sense of *J. G. Ceder* [Fundam. Math. 55, 87-93 (1964; [Zbl 0139.40401](#))].

**MSC:**

- [54F65](#) Topological characterizations of particular spaces
- [54B15](#) Quotient spaces, decompositions in general topology
- [54D99](#) Fairly general properties of topological spaces
- [54D80](#) Special constructions of topological spaces (spaces of ultrafilters, etc.)
- [54G20](#) Counterexamples in general topology

[Cited in 6 Documents](#)