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The Baire property in remainders of topological groups and other results

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**Abstract:** It is established that a remainder of a non-locally compact topological group G has the Baire property if and only if the space G is not Čech-complete. We also show that if G is a non-locally compact topological group of countable tightness, then either G is submetrizable, or G is the Čech-Stone remainder of an arbitrary remainder Y of G. It follows that if G and G are non-submetrizable topological groups of countable tightness such that some remainders of G and G are homeomorphic, then the spaces G and G are homeomorphic. Some other corollaries and related results are presented.

**Keywords:** Baire property, σ-compact, Čech-complete space, compactification, Čech-Stone compactification, Rajkov complete, paracompact p-space **AMS Subject Classification:** Primary 54H11, 54H15; Secondary 54B05

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