Bonanzinga, Maddalena

On the product of a compact space with an hereditarily absolutely countably compact space.

(English) Zbl 0937.54013
Commentat. Math. Univ. Carol. 38, No. 3, 557-562 (1997).

M. V. Matveev defined absolutely countably compact (shortly, acc) spaces X in 1994 [Topology Appl. 58, No. 1, 81-92 (1994; Zbl 0801.54021)]: for every open cover $\mathcal{U}$ and a dense set D there is a finite set F such that the star of F with respect to $\mathcal{U}$ covers X. A space X is hereditarily acc (shortly, hacc) if every of its closed subspaces is acc. The author proves analogous results on products of hacc spaces to those proved by *Vaughan* for acc spaces (all spaces are Hausdorff): (1) Product of a compact sequential space with a regular hacc is hacc. (2) Product of a compact space of countable tightness with Y is hacc provided Y is either regular ω-bounded hacc or regular acc with countable tightness. (Unlike Vaughan's results for acc spaces, the last occurrence of countable tightness in (2) cannot be replaced by countable density-tightness.).

Reviewer: M.Hušek (Praha)

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absolutely countably compact space; cartesian product

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