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TWO THEOREMS OF THE DESCRIPTIVE THEORY OF POINT SETS

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Theorem 1 ([1]). *In a non-countable perfectly normal bicompact space no class of the Borel classification of points-sets is void.*

Theorem 2 concerns $\mathscr{A}$-sets (or Suslin-sets); its proof was accomplished by my student A. Elkin (to appear in Dokl. Akad. Nauk SSSR, 1967).

Theorem 2. *Each $\mathscr{A}$-set in a complete metric space is either a σ-discrete set or contains the Cantor perfect set.*

(Remark: no assumptions of separability are needed.)

The classical result of Alexandroff-Hausdorff follows from this theorem as well as the theorem of A. H. Stone affirming the same about Borel sets in complete metric spaces.

References

[1] *В. И. Пономарев:* О борелевских множествах в совершенно-нормальных бикомпактах Докл. Акад. Наук СССР *170* (1966), 520—523.