ULTRAPRODUCTS AND CONTIGUITY

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The notions of the contiguity and the entire separateness of sequences of probability measures are important for the foundations of the mathematical statistics. The ultraproducts method provides the possibilty to transform a sequence of probability measures into a single one. Relations between the contiguity or entire separateness properties of two sequences, $\{\mu_n\}$ and $\{\nu_n\}$, and the equivalence or singularity properties of their ultraproducts are established in [1]. In case when μ_n are Borel probabilities on separable Banach spaces the ultraproduct loses many good properites of the factors. In spite of this, in this case the ultraproducts of sequences of Gaussian and p-stable probabilities will be considered. Some theorems, counterexamples, and open problems will be formulated.

References

[1] D.H. Mushtari and S.G. Haliullin: Linear spaces with probability measures, Izvestia VUZov. Matem. **4** (1992).

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