

## On extensions of invariant Borel measures

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We will discuss measure extension problem and some related questions concerning the measurability properties of real-valued functions and various point sets. Furthermore, it will shown that in the topological vector space  $\mathbf{R}^{\mathbf{N}}$  there is a class of all non-separable extensions of a nonzero  $\sigma$ -finite Borel measure, invariant under some everywhere dense continual subgroup of  $\mathbf{R}^{\mathbf{N}}$  and possess the uniqueness property.

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