IDEAL CONVERGENT SUBSEQUENCES
AND REARRANGEMENTS

These are results obtained together with Sz. Gląb, M. Popławski and A. Wachowicz. Let \( I \) be an ideal on \( \mathbb{N} \) which is either analytic or coanalytic. Assume that \( (f_n) \) is a sequence of functions with the Baire property from a Polish space \( X \) into a Polish space \( Z \), which is divergent on a comeager set. We investigate the Baire category of \( I \)-convergent subsequences and rearrangements of \( (f_n) \). Our result generalizes a theorem of Kallman. A similar theorem for subsequences is obtained if \( (X, \mu) \) is a \( \sigma \)-finite complete measure space and a sequence \( (f_n) \) of measurable functions from \( X \) to \( Z \) is \( I \)-divergent \( \mu \)-almost everywhere. Then the set of subsequences of \( (f_n) \), \( I \)-divergent \( \mu \)-almost everywhere, is of full product measure on \( \{0,1\}^\mathbb{N} \). Here we assume additionally that \( I \) has property (G).

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