Does twofold mixing imply threefold mixing

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Abstract

It is an open problem whether, for measure preserving T,

$$\lim_{n \to \infty} \mu(T^{-n}(A) \cap B) = \mu(A) \cdot \mu(B)$$

implies

$$\lim_{n \to \infty} \mu(T^{-2n}(A) \cap T^{-n}(B) \cap C) = \mu(A) \cdot \mu(B) \cdot \mu(C).$$

This talk discusses an approach to that problem.