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On a problem of G. G. Lorentz.

Let \( B \) be a finite union of connected compacts and let \( C(B) \) be the space of real-valued continuous functions on \( B \). Let \( U_n \) and \( V_m \) be \( n \) and \( m \)-dimensional linear subspaces of \( C(B) \), respectively. The problem is to find conditions on \( U_n \) and \( V_m \), such that each \( f \) in \( C(B) \) has at most one best approximant from the set \( U_n/V_m \) in the uniform norm on \( B \). The author solves this problem in the case, where \( U_n \) and \( V_m \) are Haar spaces. In particular he analyses the case of a periodic Haar space of trigonometric polynomials.

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