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COMPLETENESS AND MINIMALITY OF ONE SYSTEM OF EXPONENTS IN SPACE OF PIECEWISE CONTINUOUS FUNCTIONS

Abstract

In the paper the space conjugate to the space of the piecewise continuous functions $KC[-\pi, \pi]$ is constructed and the necessary and sufficient conditions were found for completeness and minimality of the following system of exponents:

$$\left\{ e^{i[(n+\alpha_1)t+\beta(t)]}; \ e^{-i[(k+\alpha_2)t+\beta(t)]} \right\}_{n=0;k=1}^{\infty}$$

where

$$\beta(t) = \begin{cases} \beta_1, & -\pi \leq t < 0, \\ \beta_2, & 0 \leq t \leq \pi, \end{cases}$$

$\alpha_i, \beta_i \in R, \ i = \overline{1,2}$ *are real parameters.*