

Theorem. Let $1 < p < +\infty$, $1 < \theta < +\infty$, $a = \{a_\nu\}_{\nu=0}^{+\infty} \in \mathcal{QM}$ and $\Delta_k a_\nu \geq 0, \forall k \in \mathbb{N}, \forall \nu \in \mathbb{Z}^+$ k -th difference of Fourier-Price coefficients. The generating sequence of the Price system $\{p_i\}_{i=1}^{+\infty}$ is limited, that is $\exists c \in \mathbb{N}: p_i \leq c, p_i \geq 2, i \geq 1$. The numbers $a_\nu, \forall \nu \in \mathbb{Z}^+$ are the Fourier-Price coefficients of some function $f \in L_{p\theta}[0,1], 1 < p < +\infty, 1 < \theta < +\infty$ if and only if the series

$$\sum_{\nu=0}^{+\infty} m_{\nu+1}^{k\theta - \frac{\theta}{p}} (\Delta_{k-1} a_{m_\nu})^\theta, k \in \mathbb{N}, \Delta_0 a_{m_\nu} = a_{m_\nu}$$

converges. In this case, the following inequality holds:

$$c'_{p\theta k} \left\{ a_0^\theta + \sum_{\nu=0}^{+\infty} m_{\nu+1}^{k\theta - \frac{\theta}{p}} (\Delta_{k-1} a_{m_\nu})^\theta \right\} \leq \|f\|_{p\theta} \leq c_{p\theta k} \left\{ a_0^\theta + \sum_{\nu=0}^{+\infty} m_{\nu+1}^{k\theta - \frac{\theta}{p}} (\Delta_{k-1} a_{m_\nu})^\theta \right\},$$

where the constants $c'_{p\theta k} > 0, c_{p\theta k} > 0$ depends only on the specified parameters.

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BOUNDARY CONJUGATION PROBLEM FOR PIECEWISE ANALYTIC FUNCTIONS IN BESOV SPACES

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The main aim of this work is to show solvability of the continuous boundary conjugation problem for analytic functions in the Besov space, which is embedded into the class of continuous functions.

As far as we know, (continuous) boundary value problems of conjugation of analytic functions are considered in Besov spaces for the first time in this work.

Until now, such and similar boundary value problems have been studied in spaces of functions continuous in the sense of Hölder [2, 3]. Our work proposes a method for solving the indicated boundary value problems in the class of continuous functions (Hölder property is not required) in terms of Besov spaces, which emphasises the novelty of the work.

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