MARCIKIEWICZ INTEGRALS ASSOCIATED WITH
SCHRÖDINGER OPERATOR ON GENERALIZED MORREY SPACES

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Abstract. Let $L = -\Delta + V$ be a Schrödinger operator, where $\Delta$ is the Laplacian on $\mathbb{R}^n$, while nonnegative potential $V$ belongs to the reverse Hölder class. In this paper, we study the boundedness of the Marcinkiewicz operator associated with Schrödinger operator $\mu^f_L$ on generalized Morrey spaces $M_{p,q}$. We find the sufficient conditions on the pair $(\varphi_1, \varphi_2)$ which ensures the boundedness of the operators $\mu^f_L$ from one generalized Morrey space $M_{p,q_1}$ to another $M_{p,q_2}$, $1 < p < \infty$ and from the space $M_{1,q_1}$ to the weak space $WM_{1,q_2}$.


Keywords and phrases: Marcinkiewicz operator, Schrödinger operator, generalized Morrey space.

REFERENCES


