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Convergence of the Imaginary Parts of Simplest Fractions in $L^p(\mathbb{R})$ for $p < 1$

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Abstract

© 2014, Springer Science+Business Media New York. For $p \in (1/2, 1)$, the $L^p(\mathbb{R})$ -convergence of the series (formula presented) are some points on the complex plane. The problem is solved completely in the case where the sequence $\{\operatorname{Re} z_k\}$ has no limit points. The case where this sequence has finitely many limit points is also studied.

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