
Luis Bernal-González, María C. Calderón-Moreno, and Wolfgang Luh

Universal Transforms of the Geometric Series under Generalized Riesz Methods

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Abstract. In this paper generalized Riesz methods (R, p, M) of summability are considered. We prove that, to each open set $O \subset \mathbb{C}$ with adequate topological properties and to each sequence $\{P_n\} \subset \mathbb{C}$ tending to infinity, we can associate a corresponding P-regular (R, p, M) -method so that the geometric series and a certain trigonometric series become universal in the sense that its (R, p, M) -transforms approximate any member of certain spaces of holomorphic functions or measurable functions.

Keywords. Riesz method, universal function, geometric series, trigonometric series, P-regularity.

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