New properties of a certain method of summation of generalized hypergeometric series

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Abstract

In a recent paper (Appl. Math. Comput. 215, 1622–1645, 2009), the authors proposed a method of summation of some slowly convergent series. The purpose of this note is to give more theoretical analysis for this transformation, including the convergence acceleration theorem in the case of summation of generalized hypergeometric series. Some new theoretical results and illustrative numerical examples are given.

Keywords: Convergence acceleration; Summation; Generalized hypergeometric series.

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