Asymptotic expansions of the multiple quotients of the gamma functions

(Talk)

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(joint work with Neven Elezović)

Asymptotic expansions of the multiple quotients of two gamma functions are obtained and analyzed. We apply these results to the hypergeometric function and central binomial coefficient which leads to new approximation formulas.

MSC2010: 33B15,41A60,33C05.

Keywords: asymptotic expansion, gamma function, Wallis quotient, binomial coefficient.

Section: Real and Complex Analysis.

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