AN INEQUALITY FOR $r+1 \Phi_r$ AND ITS APPLICATIONS

MINGJIN WANG

Abstract. In this paper, we use the $q$-binomial formula to establish an inequality for the basic hypergeometric series $r+1 \Phi_r$. As applications of the inequality, we derive a sufficient condition for convergence of a $q$-series and two other inequalities.


Keywords and phrases: Inequality, the basic hypergeometric function $r+1 \Phi_r$, the $q$-binomial theorem, convergence.

REFERENCES