

Pachpatte, B. G.

On some new discrete inequalities related to a certain integral inequality. (English)

Zbl 0809.26010

Libertas Math. 13, 85-97 (1993).

In the notations of the preceding review, the author considers inequalities

$$u(n) \leq \{c + T(n, k, r; F(i, u(i)))\}^{1/2}$$

with $F(i, u(i)) = f(i)u(i)$. Furthermore, some special cases of systems with two unknown functions $u_1(n)$, $u_2(n)$ are studied. As an example of possible applications of the obtained results, the author gives bounds for the solutions of the equation

$$\Delta_2^{n_2} \Delta_1^{n_1} [u(x_1, x_2)]^2 = f(x_1, x_2, u(x_1, x_2)).$$

Reviewer: J.Popenda (Poznań)

MSC:

26D15 Inequalities for sums, series and integrals

39A12 Discrete version of topics in analysis

Cited in 1 Review
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Keywords:

finite difference inequalities; Gronwall inequality