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A class of nonlinear Volterra-Fredholm type four iterated infinite integral inequality with variable lower limit. (Chinese. English summary) [Zbl 1389.26042]

Summary: A class of nonlinear Volterra-Fredholm type four iterated integral inequality with variable lower limit and infinite upper limit is studied, in which there is also a term of one variable integral. Firstly, two new functions are defined by known functions in the inequality, and then some conditions are assumed which should be satisfied by the two new functions and known functions in the inequality. Finally, the estimation for the unknown function in the Volterra-Fredholm type integral inequality is given by analysis techniques, such as change of variable, amplification of functions and inverse function.

MSC:
26D15 Inequalities for sums, series and integrals

Keywords:
Volterra-Fredholm-type integral inequalities; infinity integral; integral with variable lower limit; estimation of unknown function

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