

On the q -partial Differential Equations

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A q -partial derivative of a function of several variables is its q -derivative with respect to one of these variables, regarding other variables as constants. A q -partial differential equation is an equation containing unknown multivariable functions and their q -partial derivatives, which is a q -extension of the ordinary partial differential equation. The q -partial differential equation is a completely new research topic in q -calculus, which reveal some surprising connections between q -series and the analytic functions of several complex variables. In this talk, we will introduce some recent progress in the q -partial differential equations.