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Unified and localized method and apparatus for solving linear and non-linear integral, integro-differential, and differential equations

Abstract

This invention is based on a new class of mathematical transforms named Rao Transforms invented recently by the author of the present invention. Different types of Rao Transforms are used for solving different types of linear/non-linear, uni-variable/multi-variable integral/integro-differential equations/systems of equations. Methods and apparatus that are unified and computationally efficient are disclosed for solving such equations. These methods and apparatus are also useful in solving ordinary and partial differential equations as they can be converted to integral/integro-differential equations. The methods and apparatus of the present invention have applications in many fields including engineering, science, medicine, and economics.

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