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Gangaram S. Ladde* (gladde@usf.edu), Department of Mathematics and Statistics, 4202 East Fowler Avenue, PHY 114, Tampa, FL 33620-5700. *Energy/Lyapunov Function Method for Solving Stochastic Differential Equations.*

Developing a very general conceptual algorithm for finding solution process of first order nonlinear stochastic differential equations, several types of differential equations are solved in explicit/implicit form. The scope of this approach is exhibited by presenting several special classes of stochastic differential equations in a systematic way. Moreover, the approach initiates a research area, "Methods of Solving Differential Equations". This opens a door for young researchers, in particular, serious undergraduate students and interdisciplinary researchers with minimal mathematical background to undertake the research work in mathematical sciences. (Received September 16, 2011)