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Application of ODE'S

- 1) Newton's law of cooling
- 2) Beam
- 3) Physical Application
- 4) Radio Active Element
- 5) Electrical Circuits
- 6) Modelling free mechanical Oscillation
- 7) No Damping
- 8) Light Damping
- 9) Heavy Damping
- 10) Modelling forced mechanical oscillation
- 11) Computer exercise or activity
- 12) Modelling with first order equations

There are several major methods for the solution of PDE

- 1 Separation of variables
- 2 Method of characteristics
- 3 Integral transform
- 4 Superposition principle
- 5 Change of variables
- 6 Lie group method
- 7 Semianalytical method as well as various numerical methods

Applications of PDEs

Partial differential equation In many engineering or science problems such as heat transfer, elasticity, quantum mechanics, water flow and other problems are governed by partial differential equation. By nature, this type of problem is much more complicated than previous ordinary differential equations