## Modelling Physical Phenomena, Planetary Motion and Conservation Laws

Gokulraj R - 2020102042 Anjali Singh - 2020102004 Shruti Kolachana -

April 17, 2022

- A differential equation is an equation that related one or more unknown functions and their derivatives.
- In applications, the functions generally represent physical quantities, the derivatives represent their rate of changes, and the differential equation defines a relationship between the two.
- Two major division of differential equations: ODE and PDE.

## ODE and PDE

 An ordinary differential equation (ODE) is an equation containing an