

**Isaac Newton** (1686|1714, Principia):

$$F_g = G Mm/r^2$$

Rationem vero harum gravitatis proprietatum ex phænomenis nondum potui *deducere* & hypotheses non fingo.

But the reason for these properties of gravitation have I not yet been able to *deduce* from phenomena & I do not fabricate assumptions.

**He says: I don't know HOW & WHY masses exert a force on each other.**

**Johann & Daniel Bernoulli** (1712|38|47) & **Joseph-Louis Lagrange** (1779|82):

$$F_g = m\nabla V, V = -GM/r$$

Gravitational field in form of a gravitational potential everywhere in space around a mass and the force per mass equals its gradient.

**But HOW & WHY does a mass produce this field?**

**Albert Einstein** (1915):

$$G_{\mu\nu} = \kappa T_{\mu\nu}, \kappa = 8\pi G/c^4$$

Gravitation is curvature of spacetime.

**But HOW & WHY does a mass curve spacetime?**

**NONE of the above EXPLAINS gravitation, they merely *describe* it.**