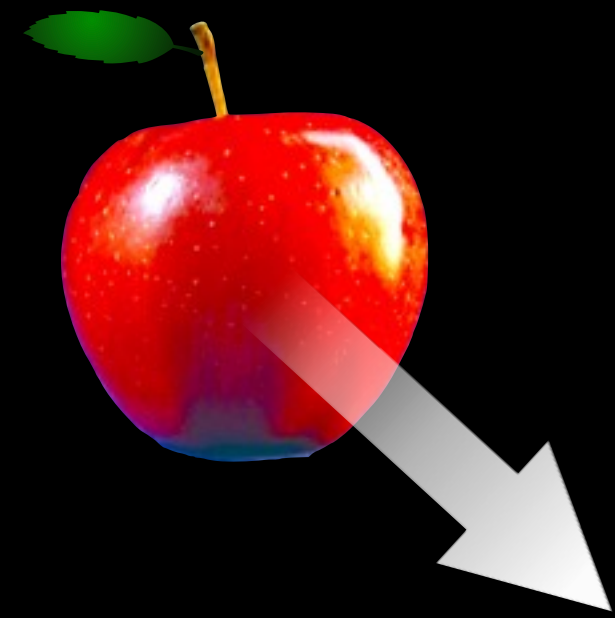


# GRAVITATIONAL FORCE PROBLEMS



$$F_g = m \frac{GM}{r^2}$$



- Newton's gravity doesn't fit this picture
- Action at a distance not compatible with finite speed of light
- Need a way to unify gravity & spacetime

# EQUIVALENCE OF GRAVITY & CURVED GEOMETRY

- Absent a force, particles move in straight lines
- A force can curve the path
- In curved surfaces, even straight lines appear to curve
- Spatial curvature can account for gravitational "forces"

