Final speed of object dropped from $v_0 = 0$
Neglecting air resistance (F=mg vs. F=GMm/r^2)

F=mg

$$F = \frac{GMm}{r^2}$$

Final speed (m/s)

Height above surface of Earth (km)
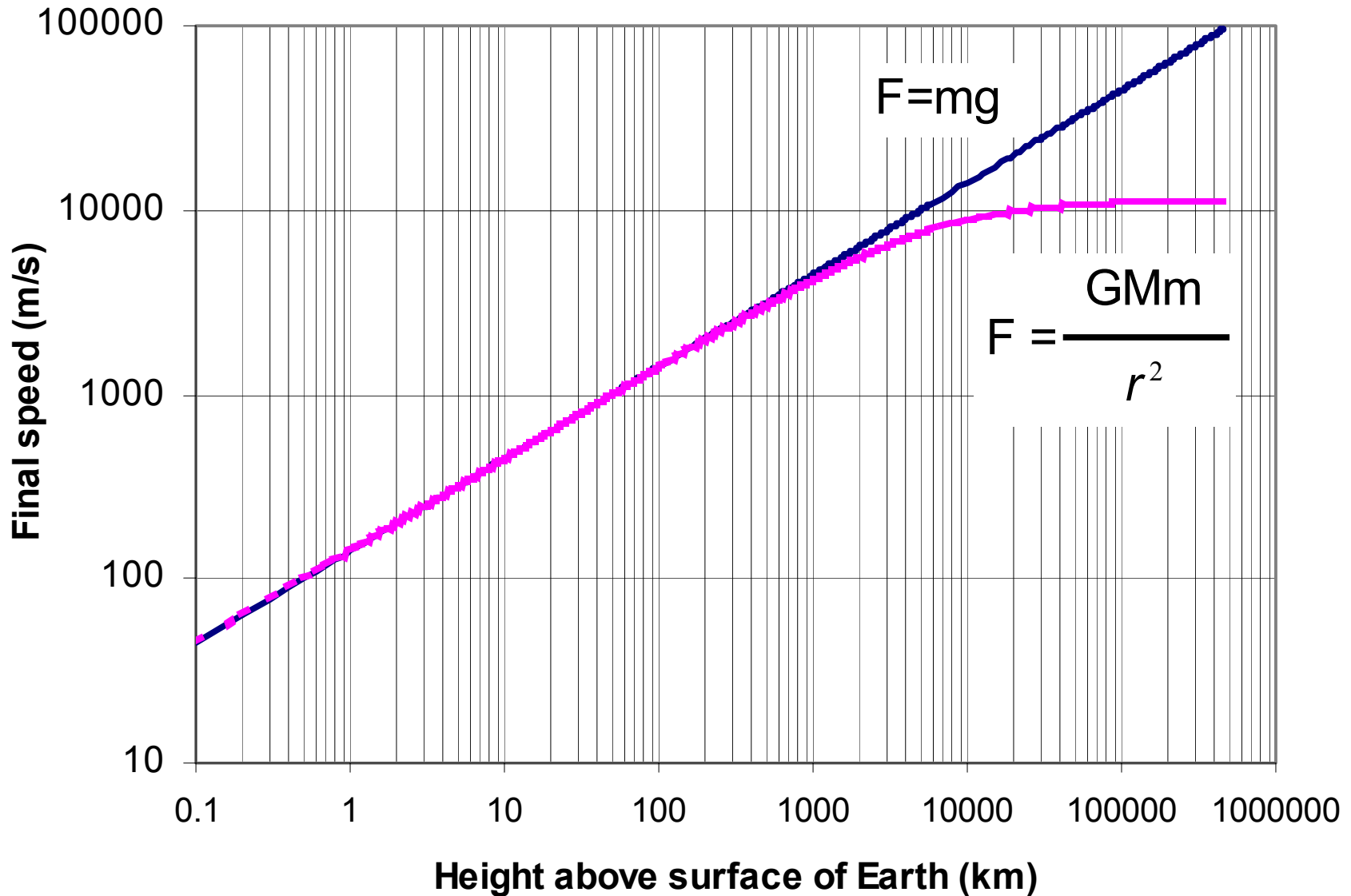
Correction factor for *F*=mg for variation of gravity with altitude

R = Radius of Earth
h = altitude

$$\left(\frac{R}{R+h}\right)^2$$

commercial aircraft

LEO satellites

International Space Station

Apogee Chandra X-ray Observatory

High altitude satellites

Moon

Geostationary satellites

Height above surface of Earth (km)