



Physics 390

Two-Slit Experiments

Bullets

Bullets are indestructible → observe only whole bullets

Experimental Result: $P_{12}(x) = P_1(x) + P_2(x)$

Water Waves

Experimental Result: $I_{12}(x) = I_1(x) + I_2(x) + 2\sqrt{I_1 I_2} \cos \theta$

Electrons

Experimental Result: $P_{12}(x) = |\phi_1(x) + \phi_2(x)|^2$