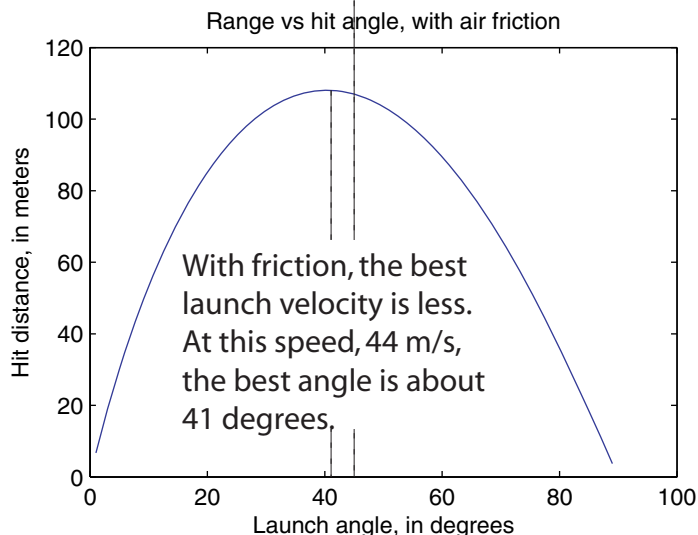
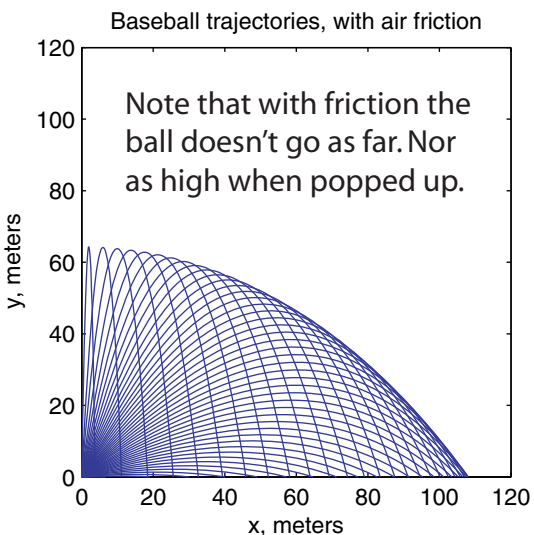
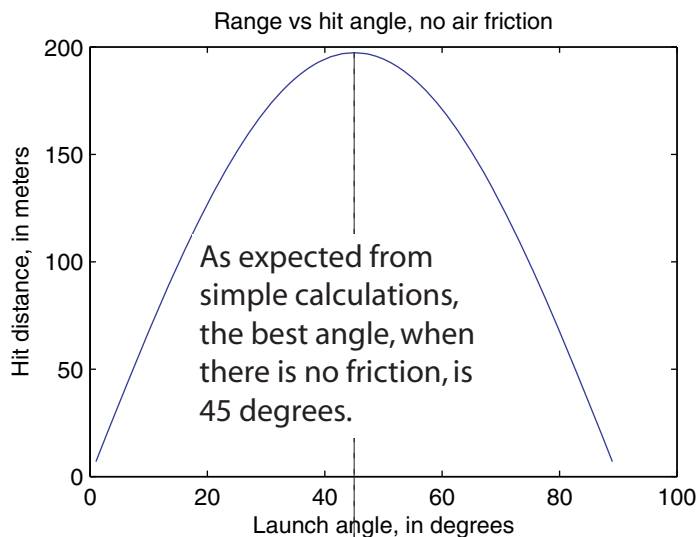
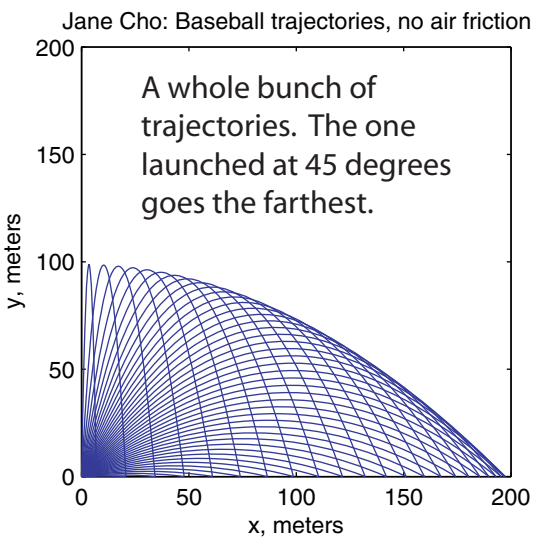


Baseball. For the first 4 plots realistic ball properties are used and the launch speed is always 44 m/s (typical home run hit). Spin is ignored.



At right are a bunch of trajectories. The slowest launch is 10 m/s, the fastest is 100,000,000 m/s. Such a ball would burn up, tear apart etc... but ignore that.

Note that as the speed gets large the trajectory gets closer and closer to, its a strange and beautiful shape, to a triangle. The same would happen if the speed were fixed and the drag progressively increased.

With no friction the range increases with the square of the speed. With quadratic drag, at high speeds the range goes up with the log of the launch speed. Like the penetration distance of a bullet.

