

Story: Flight of an Athlete

One day, late in the season of 2008, at Sunday River, Maine, a young skier named Simon Dumont started his run down to the monster quarter pipe below.

He crouched in his tuck, his poles under his arms tight to his body and his hands pushed forward to pick up the speed he needed for what was coming.

A few feet before the ramp, he opened up his stance to absorb the huge compression that was about to hit him as he went from horizontal to vertical in less than 40 feet at almost 60 mph.

He rocketed up the ramp, wide legged and smooth, timing his pop for the nanosecond he hit the lip.

As he flew up the 35 feet into the sky that set a record that day, Dumont grabbed his tails and slowly rotated 900 degrees ... two and a half full turns ... so that by the time he started his descent, he was square to his ski tips and pointing straight down the fall line ... the big air skiers' prayer.

73 and a half beautiful feet and three and a half seconds later he landed perfectly on the ramp and skied into the record books.

And where Simon Dumont was at every moment of that epic flight can be described by this quadratic function.

$$h(t) = -\frac{1}{2}gt^2 + v_0t + s_0$$

Every ball thrown, passed or kicked, and every person or animal that jumps, follows a path defined by this quadratic function. But not many paths were as “hold your breath” awesome and graceful as Simon Dumont's arc over Sunday River that day.