

**Slide 35:**

Example of nonlinear feedback.

Nonlinear damping:  $m\ddot{y} + f_d(y, \dot{y}) + ky = f(t)$  .

1. Measure displacement and speed
2. Compute  $f_d(y, \dot{y})$  from analytical expression (*Note: There will be some error in the analytical expression, but it can be compensated for through linear control*)
3. Subtract it (in feedback) from the plant.