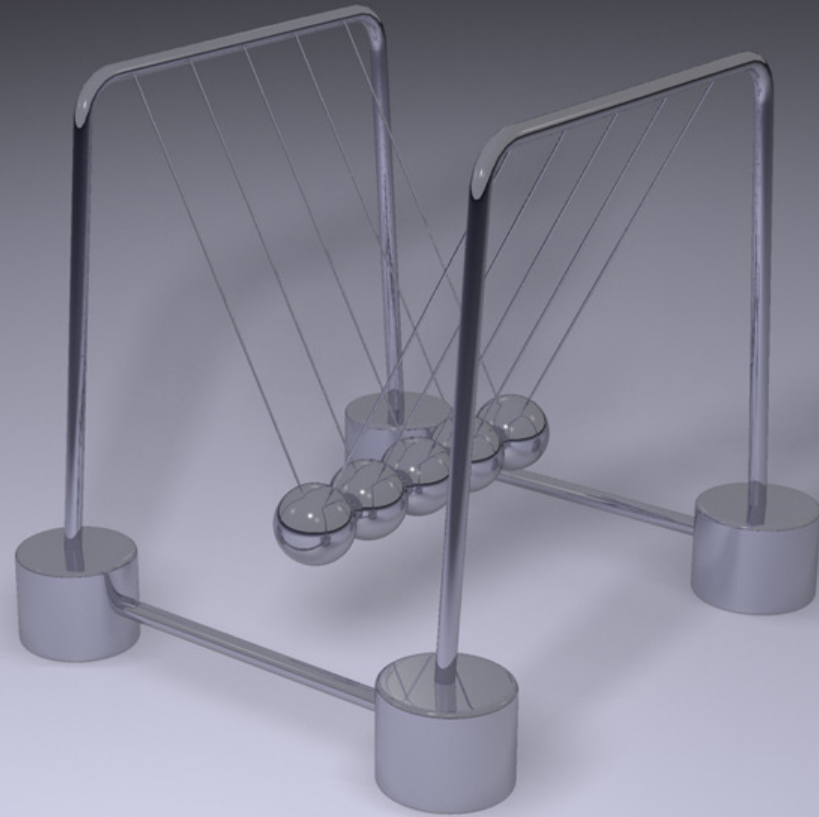


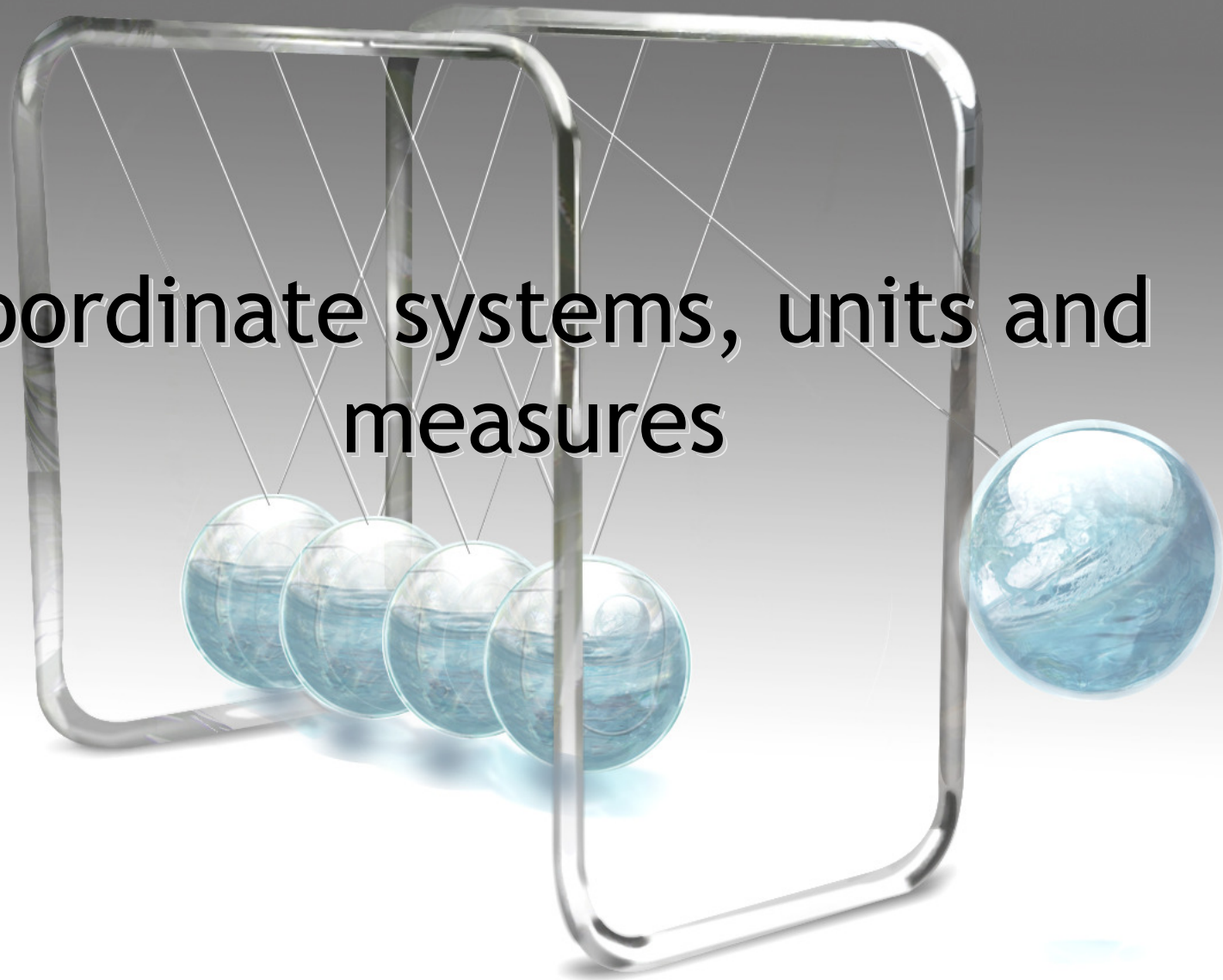
# DM2212 Programming Physics



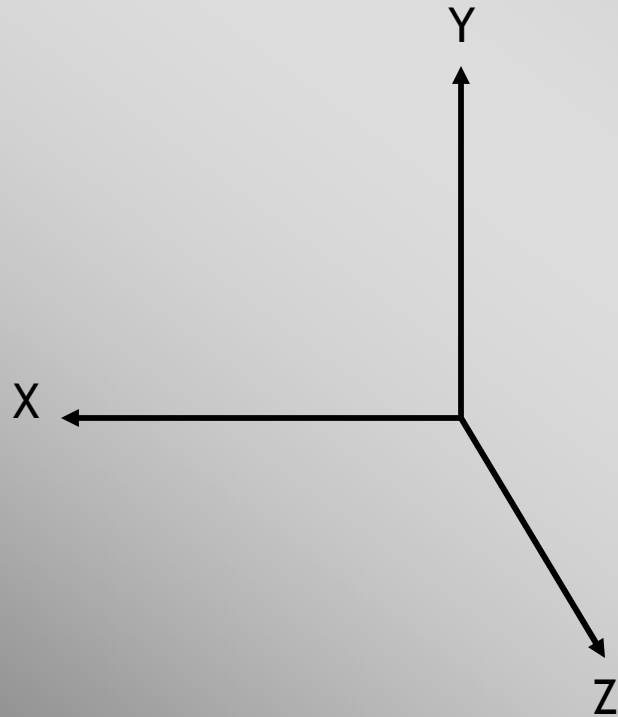
FALLING APPLE<sup>S</sup>  
MINDPHASE

**ML: Dioselin Gonzalez**  
**2007 S1**

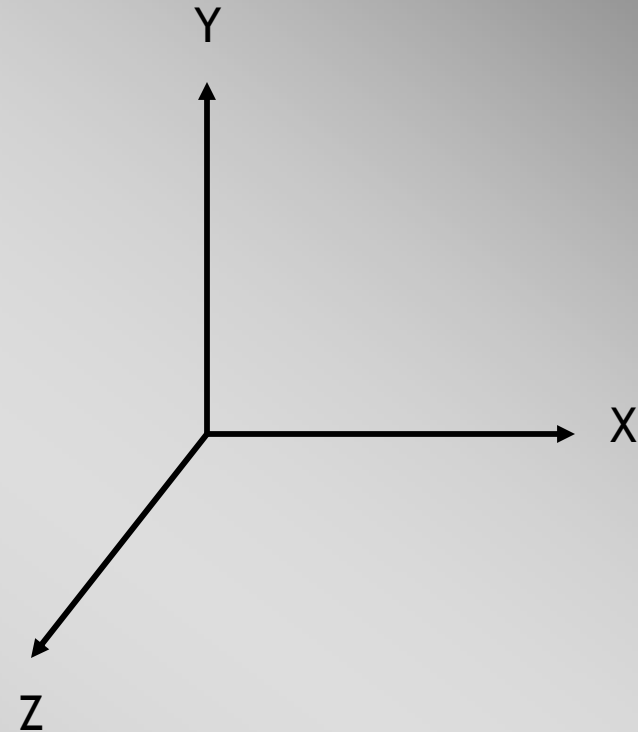
# Coordinate systems, units and measures



# Coordinate systems



Left-hand system



Right-hand system

# The metric system

kilo-	1000	$10^3$
hecto-	100	$10^2$
deca-	10	$10^1$
deci-	.1	$10^{-1}$
centi-	.01	$10^{-2}$
milli-	.001	$10^{-3}$



# Scientific notation



- $32 = 3.2 \times 10^1$
- $320 = 3.2 \times 10^2$
- $3200 = 3.2 \times 10^3$
  
- $0.32 = ?$
- $0.032 = ?$

# Conversions

$$0.7 \text{ kg} = 0.7 \text{ kg} \times \frac{10^3 \text{ g}}{\text{kg}} = 700 \text{ g}$$

$$1 \text{ year} = 1 \text{ year} \times \frac{365 \text{ days}}{\text{year}} \times \frac{24 \text{ hours}}{\text{day}}$$

# References

- <http://www.lightandmatter.com/area1book1.html>