

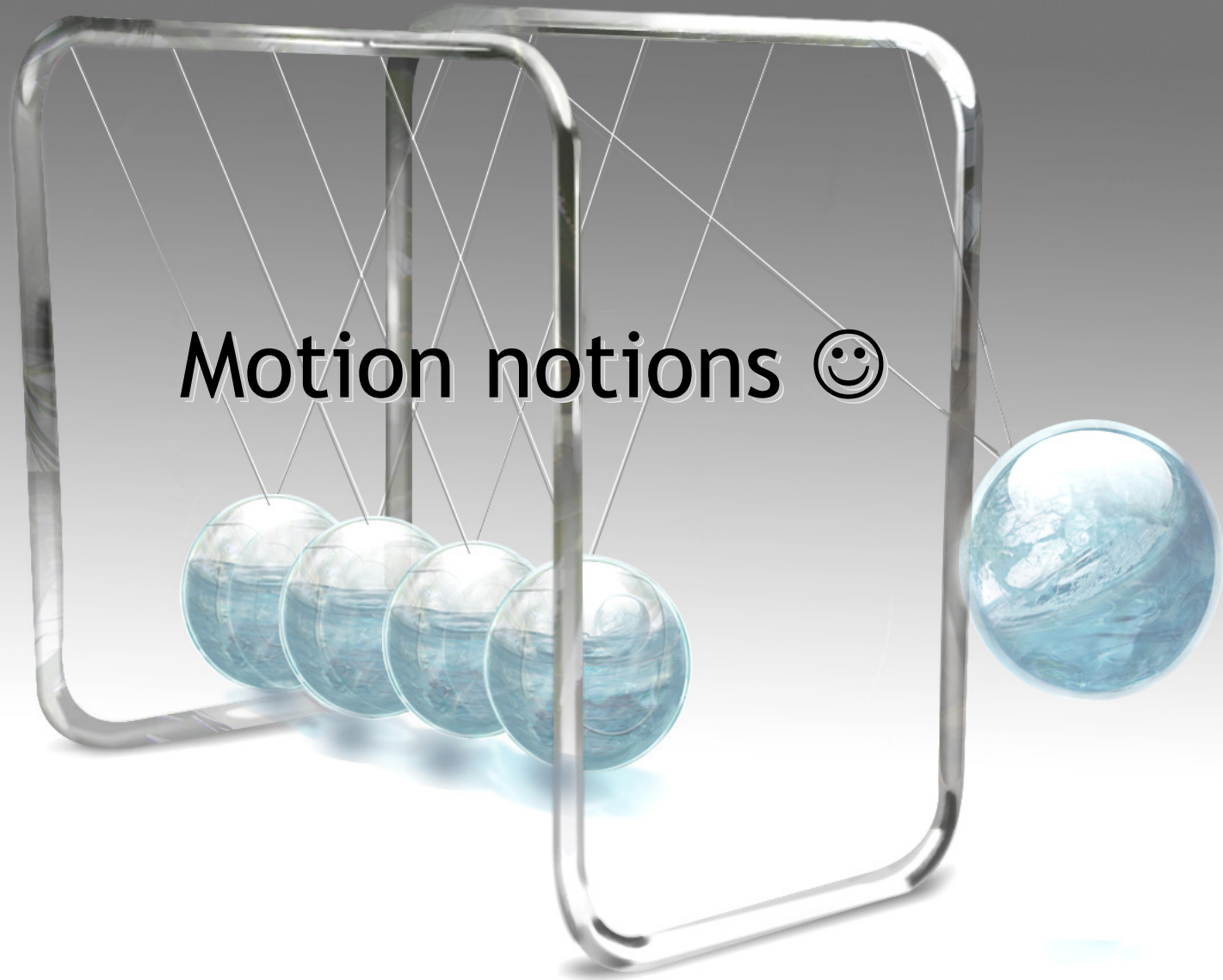
# DM2212 Programming Physics



FALLING APPLE<sup>S</sup>  
MINDPHASE

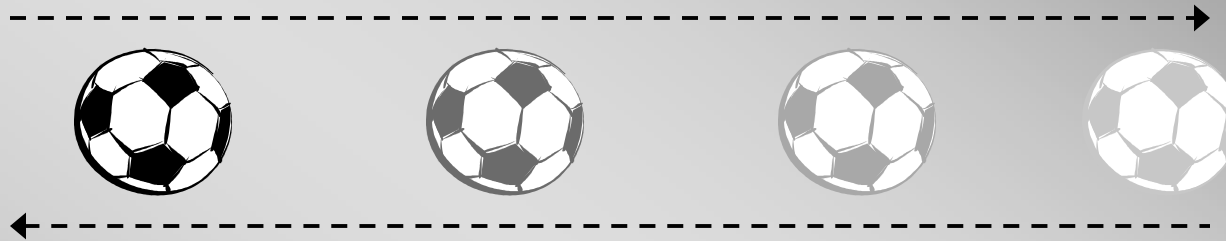
**ML: Dioselin Gonzalez**  
**2007 S1**

# Motion notions 😊

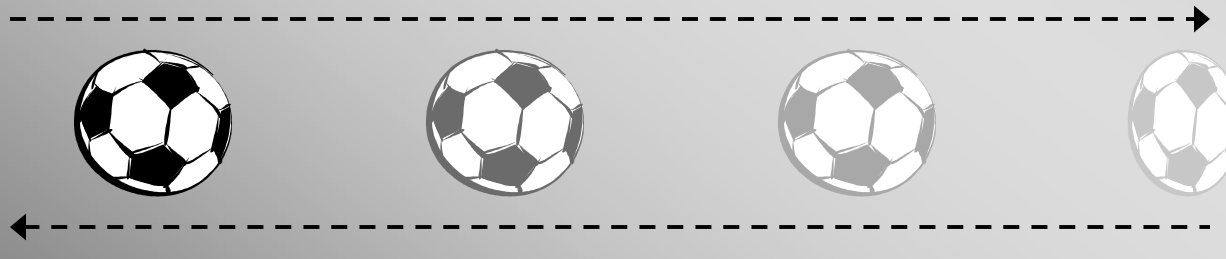


# Types of motion

- Rigid body motion

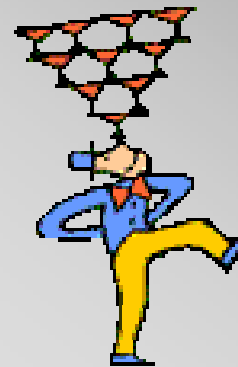
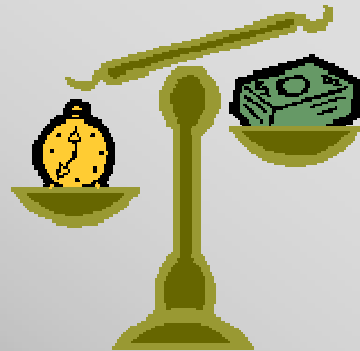


- Soft body motion



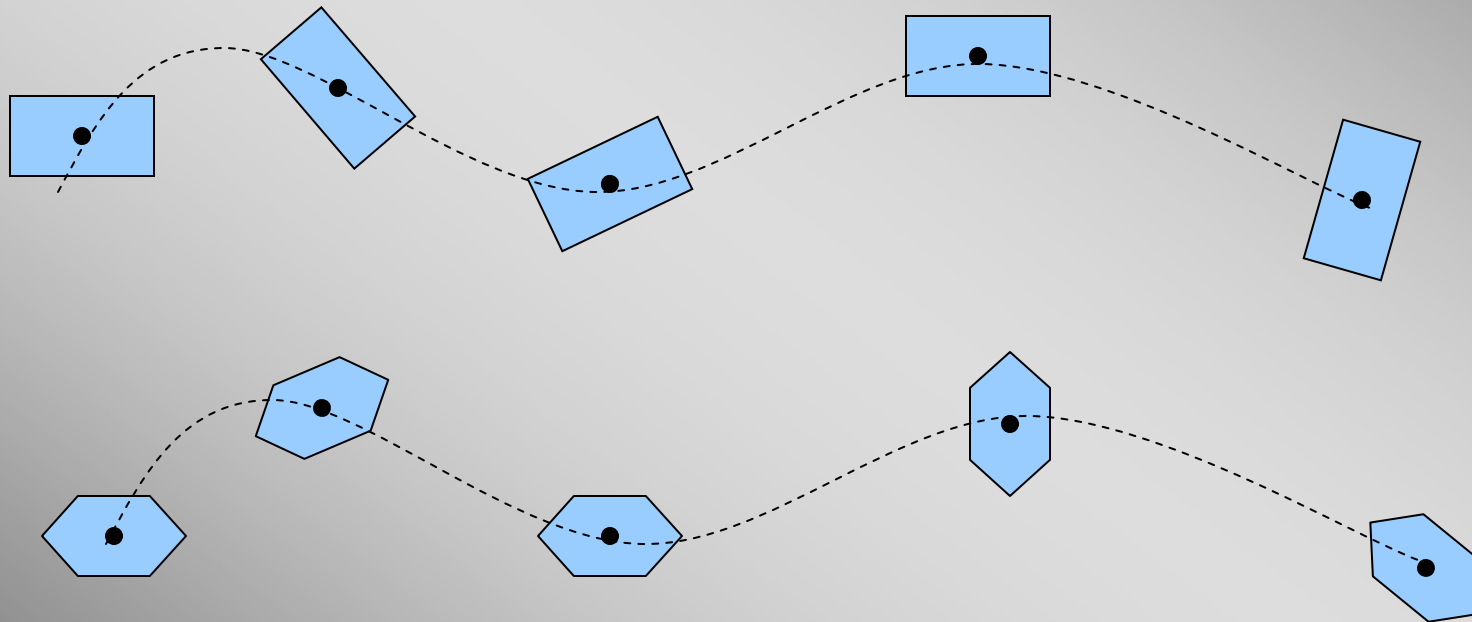
# Center of mass

~ “average location of all masses”

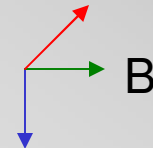
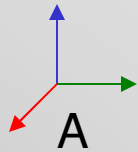


# Motion of rigid bodies

- Rotation + Center of mass motion



# Frames of reference



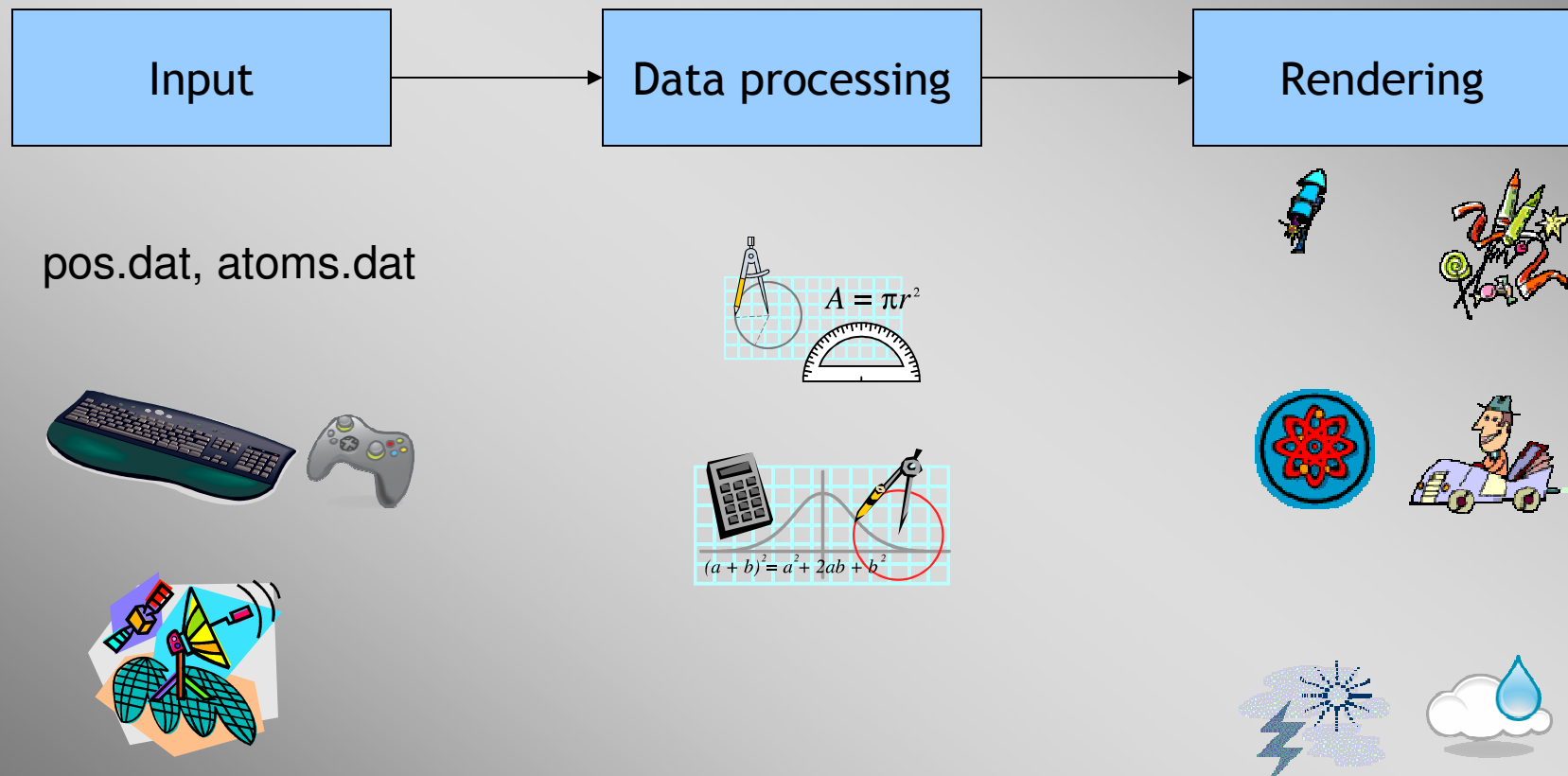
- Inertial vs. non inertial
- Visit

<http://www.phy.ntnu.edu.tw/ntnujava/index.php?topic=140.0>

# Physics in interactive apps



# Interactive applications





# Interactive applications

- Scientific visualization
  - Realism, exactness
  - Understanding, analysis
- Games, animations
  - Eye-candy based on physics principles
  - Entertainment
  - Pseudo-physics often used

# References

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