

PHY1002 Physics Laboratory (2022-2023 Term2)

Short Report

Name:

Student ID:

Group:

Date of experiment:

Experiment 3. Conservation of Energy (Ballistic Pendulum)

1. Fill in the table below from the pendulum experiment:

No. of Measurements	Angle θ (rad)	h (m)	v_0 (m/s)
1			
2			
3			
4			
5			
Average with Standard Error			

2. Fill in the table below with v_0 measured by photogate:

No. of Measurements	v_0
1	
2	
3	
4	
5	
Average with Standard Error	

3. How well does the initial speed, v_0 , calculated from Equation 4 agree with the value measured directly using the photogates? What does this show? Why is error analysis important?

--- End of Laboratory Report ---

Notes:

- **Submit soft copies online.**
- **No further modification allowed after deadline.**
- **No figure is required if not specified.**