

Phys 230 EH71

Experiment: 1 Coulomb's Law

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Lab Partner

1 Introduction

$$F_e = \frac{kq_1q_2}{r^2} \tag{1}$$

$$F_e \cos \theta - F_g \sin \theta = 0 \tag{2}$$

$$\frac{F_e}{F_g} = \tan \theta \tag{3}$$

$$\frac{d_1}{l} = \sin \theta \tag{4}$$

$$F_e = F_g \frac{d_1}{l} \tag{5}$$

$$\frac{kq_1q_2}{r^2} = mg \frac{d_1}{l} \tag{6}$$

$$\frac{h}{H} = \frac{r}{R} = \frac{d_1}{D_1} = \frac{d_2}{D_2} \tag{7}$$

$$D_1 = \left(\frac{H}{h}\right)^3 \left(\frac{l}{mg}\right) \frac{kq_1q_2}{R^2} \tag{8}$$

2 Experimental Method

3 Results

4 Discussion

5 Conclusions

I have changed the text
moar L^AT_EX hahahah hopefully this works o shit niiiice