

8. Statistical Quantities Comparison

Statistical Quantities		
	μ	σ
Experiment 1	20.0107	3.0582
Experiment 2	19.5873	2.2000
Experiment 3	20.8629	3.7034
Experiment 4	20.6025	3.9131
Experiment 5	14.2585	0.8667
Cycle 1	16.9635	2.7884

9. Anomalous Experiment

Anamoly is Experiment 5.

In Experiment 5, the load is too large which implies higher Stress and hence a higher value of strain.

- Range of Maximum Mass for other Experiments : 1.2-1.6kg
- Maximum Mass for Experiment 5 : 3kg

While performing this experiment we assume stress and strain to be very small and in the proportionality limit of the material. i.e Stress and Strain are linearly dependent

Although the plots obtained by the other Experiments are also not completely linear due to which we do not get the accurate value, The percentage of linearity in the plot of Experiment 5 is extremely low which makes it the anomalous experiment