



MISSION GRAVITY

DATA LOG

MISSION GRAVITY: DATA COLLECTION

GOAL: MODEL THE PROPERTIES OF STAR # ____ AS THEY CHANGE OVER TIME

EXPERIMENT 1

STUDY THE TEMPERATURE OF A STAR USING THE MEASUREMENT OF PEAK WAVELENGTH

AGE years	PEAK WAVELENGTH nanometers	TEMPERATURE (K) 2,900,000 Wavelength	NOTES colour, etc
0 YEARS (today)			

EXPERIMENT 2

STUDY THE DIAMETER OF A STAR USING THE MEASUREMENT OF ANGULAR SIZE

AGE years	DISTANCE d solar radii	ANGLE α degrees	ANGLE β radians $\beta = \alpha \times (\pi/180)$	DIAMETER solar radii $D = \beta \times d$
0 YEARS (today)				

EXPERIMENT 3

STUDY THE MASS OF A STAR USING THE MEASUREMENT OF GRAVITATIONAL ACCELERATION

AGE years	DISTANCE d solar radii	ACCELERATION a $\frac{\text{solar N}}{\text{solar mass}}$	MASS solar mass $M = a \times d^2$
0 YEARS (today)			

EXPERIMENT 4

STUDY THE COMPOSITION OF A STAR USING THE ELEMENT ABUNDANCES

AGE years	HYDROGEN %	HELIUM %	OTHER ELEMENTS PRESENT
0 YEARS (today)			