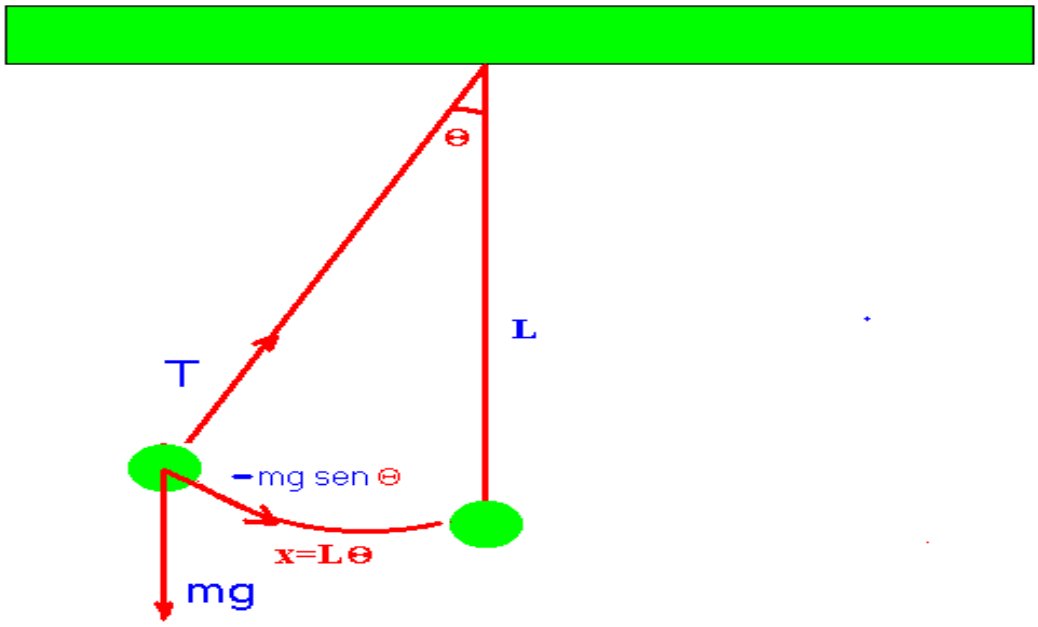


Pêndulo simples $m\,(d^2x/dt^2) = -\,mg\,\mathrm{sen}\Theta$; $x=L\Theta$;

$mL(d^2\Theta/dt^2) = -\,mg\,\mathrm{sen}\Theta$; $\mathrm{sen}\Theta \approx \Theta$, $\Theta << 1$.

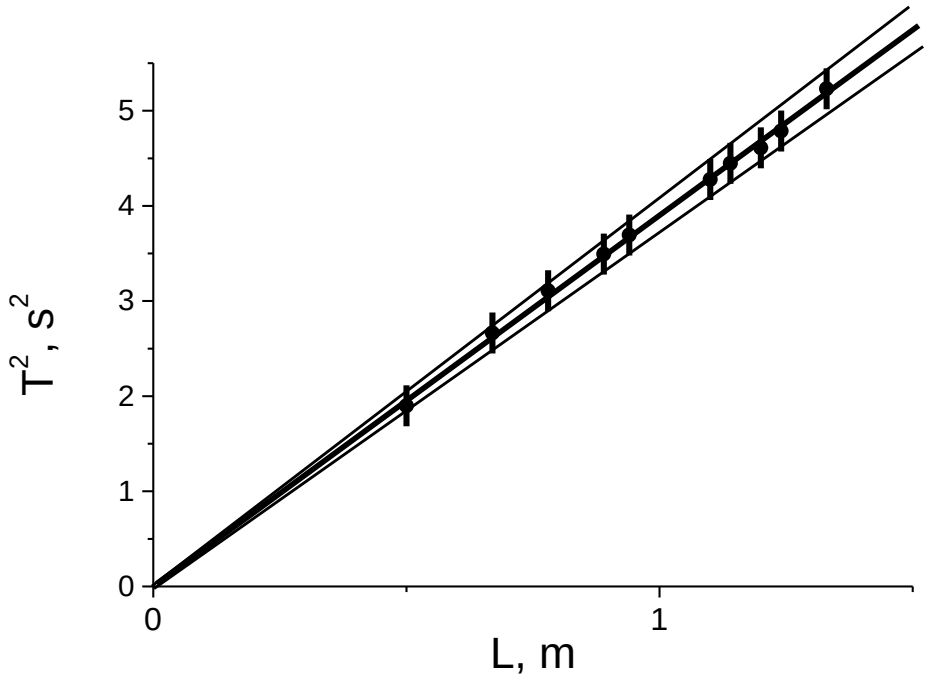
$mL(d^2\Theta/dt^2) = -mg\Theta$; $d^2\Theta/dt^2 = -g\Theta/L$; $\Theta = \Theta_m \cos(\omega t)$;

$d^2(\cos\omega t)/dt^2 = -\omega^2(\cos\omega t)$; $-\omega^2\Theta_m(\cos\omega t) = -\{\Theta_m\cos(\omega t)\}g/L$; $\omega^2 = g/L$; $\omega = (g/L)^{1/2}$

$T = 2\pi/\omega$; $T = 2\pi(L/g)^{1/2}$; $T^2 = 4\pi^2(L/g)$

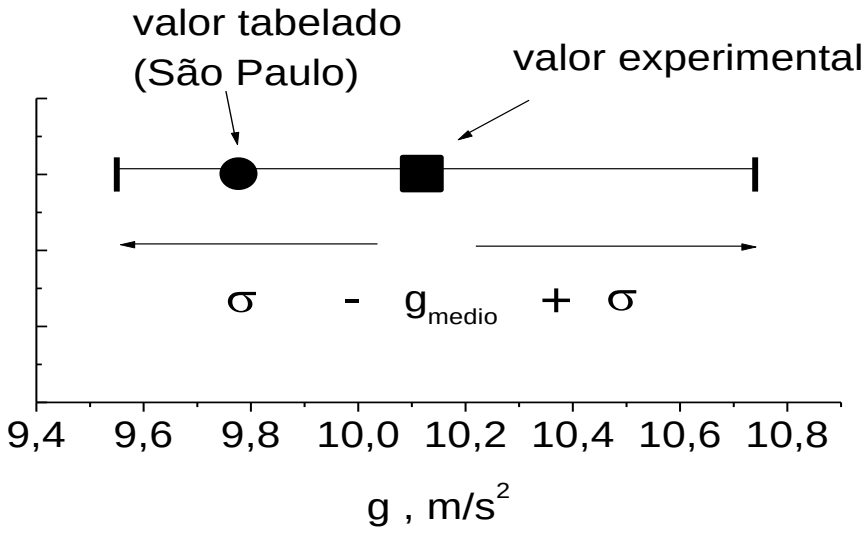
$$\sigma = \sqrt{\frac{\sum_{j=1}^{n}\left(y_j - \bar{y}\right)^2}{n-1}}$$

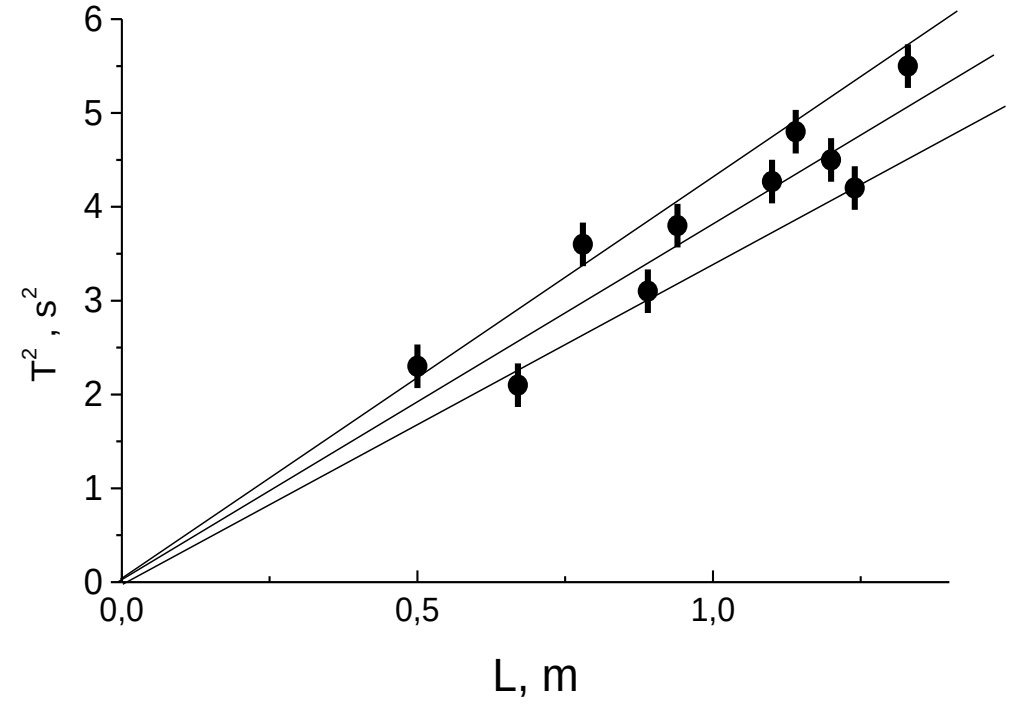
$(\sigma_T^2/T^2) = 2\sigma_T/T$ n=10

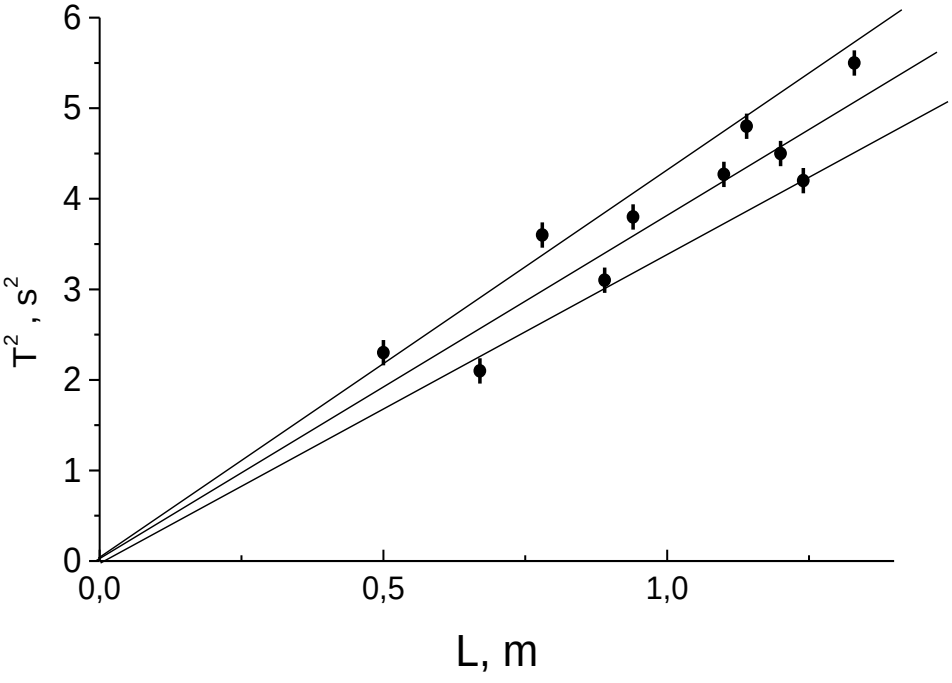


$T^2=4\pi^2(L/g)$; $g_{medio}=4\pi^2 ctg\vartheta_{medio}$; $g_{medio}=10{,}12\ m/s^2$;

$g_{max} = 10{,}74\ m/s^2$, $g_{min} = 9{,}55\ m/s^2$, $\sigma_g= (g_{max} - g_{min})/2=0.6 m/s^2$.




6
5
4
3
2
1
0
0,0
0,5
1,0
T², s²
L, m


6
5
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1
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0,0
0,5
1,0
T², s²
L, m