

$\omega_0 = \sqrt{\frac{g}{l}}$
DIPLOMA

ACADEMIC EXCELLENCE

The Pedagogical Council of Instituto Superior Técnico awards this diploma to

+ $\frac{1}{2} P$
DIogo SAMPAIO PEREIRA

in recognition of their exceptional curricular performance in **Mestrado em Engenharia de Materiais**, in the academic year **2023/2024**.

$$PV = nRT$$

$$\varepsilon_C = \frac{T_F}{T_0 - T_F}$$

Instituto Superior Técnico, May 23, 2025

$$\nabla^2 \psi + mc^2 \psi = 0$$

Miguel Cacho Teixeira
 President of the Pedagogical Council of Instituto Superior Técnico

$$i\hbar \frac{\partial \psi}{\partial t} = \left[-\frac{\hbar^2}{2m} \frac{\partial^2}{\partial x^2} + V(x,t) \right] \psi$$

$$\vec{\tau} = \frac{d\vec{L}}{dt}$$

$$u(v,T) = \frac{2hv^3}{c^2} \frac{1}{\exp\left(\frac{hv}{k_B T}\right) - 1} \quad \omega_0 = \sqrt{\frac{k}{m}}$$

$$\vec{F} = \frac{\partial \vec{r}}{\partial t}$$

$$\vec{F}_G = -G_N \frac{m}{r^2} \vec{e}_r$$

$$d\vec{B} = \frac{\mu_0 I_c}{4\pi} \cdot$$

$$\omega_0 = \sqrt{\frac{g}{l}}$$

$$\vec{F} =$$

$$\vec{E} = \frac{1}{4\pi\epsilon_0 r^2} \frac{Q}{r^2} \vec{e}_r$$

$$d\vec{B} = \frac{\mu_0 I}{4\pi} \frac{d\vec{l} \times \vec{e}_r}{r^2}$$

$$\vec{F} = q(\vec{E} + \vec{v} \times \vec{B})$$

$$\frac{\partial^2 \phi}{\partial t^2} = v^2 \frac{\partial^2 \phi}{\partial x^2}$$

$$(\vec{D}_2 - \vec{D}_1) \cdot \vec{n} = 0$$

$$\frac{\partial^2 \phi}{\partial t^2} = v^2 \frac{\partial^2 \phi}{\partial x^2}$$

$$\omega_0 = \sqrt{\frac{k}{m}}$$

$$\vec{D} = \epsilon \vec{E}$$

$$\vec{H} = \frac{1}{\mu} \vec{B}$$

$$\Delta t' = \sqrt{\frac{\Delta t}{1 - \frac{v^2}{c^2}}}$$

$$P = \epsilon \sigma A T^4$$

$$\gamma = \frac{c_p}{c_v} = 1 + \frac{R}{c_v}$$

$$\eta_C = 1 - \frac{T_F}{T}$$

$$\begin{cases} x' = \gamma(x - \beta ct) \\ y' = y \\ z' = z \\ ct' = \gamma(ct - \beta x) \end{cases}$$

$$\Delta x' =$$

$$\epsilon =$$