

# The LUA-PHYSICAL library

Version 0.1

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## **Abstract**

`lua-physical` is a pure Lua library which provides functions and object for doing computation with physical quantities. This package provides a lot of units of the SI-system and the imperial system.

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# 1 Introduction

A physical quantity is composed by a number and a unit. This lua-package provides the means to do calculations.

```
\begin{luacode}
  s = 10 * _m
  t = 2 * _s
  v = s/t
\end{luacode}

A car travels  $\text{Q{s}}$  in  $\text{Q{t}}$ . Calculate its velocity.


$$v = \frac{s}{t} = \frac{\text{q{s}}}{\text{q{t}}} = \text{q{v}}$$

```

A car travels 10 m in 2 s. Calculate its velocity.

$$v = \frac{s}{t} = \frac{10\text{ m}}{2\text{ s}} = 5\text{ m/s}$$