Physics 1
HSLU, Semester 2

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Last update: February 17, 2025

Contents

Part I

Mechanic

1 Cinematic

1.1 Uniform linear motion

$a = \text{const.}$

$$v(t) = \int_{t=0}^{t} a\, dt' = [a \cdot t']_0^t + C = a \cdot t - a \cdot 0 + C = a \cdot t + v_0$$

1.2 Non-uniform linear motion

Part II
Fluid dynamics