

Simple numerical simulation

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- 1 Differential equation of kettle cooling
- 2 Application of the Explicit Euler method to the problem
- 3 Section 3

Given:

$$t = [t_0, \infty), \quad t_0 = 0$$

$$T_{env}, k.$$

$$T(t_0) = T(0) = T_0.$$

$$\frac{dT}{dt} = -k(T(t) - T_{env}). \quad (1)$$

Find:

$$T(t), \quad t \in [t_0, \infty).$$

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Differential equation (1)

$$\frac{dT}{dt} = -k(T(t) - T_{env}).$$

$$dT = -k(T(t) - T_{env})dt.$$

Approximation:

$$dt \approx h, \quad \Delta T = \frac{dT}{dt}h$$

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A bigger title

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A bigger title

Text...

A subtitle

Text and bibliographical reference, for example about Quine [1]

References



W. V. QUINE – “Ontological Remarks on the Propositional Calculus”, *Mind* **43** (1934), no. 172, p. 472–476, reprinted in *The Ways of Paradox and other essays*, H.U.P., 1966, pp. 265-271.