

# Natural Nonlinear Quantum Units and Human Artificial Linear System of Units

Binder, Bernd (2003) Natural Nonlinear Quantum Units and Human Artificial Linear System of Units.

Full text available as:

[PDF](#) - Requires a viewer, such as [Adobe Acrobat Reader](#) or other PDF viewer.

[Postscript](#) - Requires a viewer, such as [GhostView - GSView](#)

## Abstract

Diving into the nonlinear massive range of nuclear physics, the quark model already indicates that the linearized massless length scales break down. Although we are often confronted with nonlinear and relativistic dynamics, we obtain our fundamental values with the classical linear system of units SI by linear extrapolation. Ignoring the correspondent nonlinear relations while extrapolating to the Planck scale  $h=c=\mu=1$  based on linear massless relations leads to pseudo-scales equivalent to geometrized mass units. This paper shows that one of the fundamental dimensions length, time, mass becomes redundant approaching the Planck scale. The hidden information can be assigned to a geometrized natural quantum mass unit  $\mu$  part of the Planck constant  $h$ . In other words:  $c$ ,  $h$ , and  $\mu$  are interrelated.

**Keywords:** SI, Planck, Compton, topological, fundamental, particle, proton, electron, neutron, modes, nonlinear, phase, fine structure, iteration, iterative

[Specific Sciences: Physics: Fields and Particles](#)

[General Issues: Laws of Nature](#)

**Subjects:** [Specific Sciences: Physics: Quantum Mechanics](#)

[Specific Sciences: Physics: Relativity Theory](#)

[General Issues: Theory/Observation](#)

**ID Code:** 969

**Deposited By:** [Binder, Bernd](#)

**Deposited On:** 16 January 2003