

# Teilchenmassen: Eine kurze Übersicht

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# Kapitel 1

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## **Zusammenfassung**

Dieses Dokument bietet eine kompakte Übersicht über die T0-Vorhersagen für Teilchenmassen. Alle Massen werden aus dem Parameter  $\xi = \frac{4}{3} \times 10^{-4}$  berechnet.

## 1.1 Die Massenformel

Die universelle T0-Massenformel:

$$m_i = \frac{K_{\text{frak}}}{\xi^{n_i}} \quad (1.1)$$

wobei  $n_i$  die „Generationszahl“ und  $K_{\text{frak}} = 0,986$  ist.

## 1.2 Leptonenmassen

Lepton	n	T0-Vorhersage	Experiment
Elektron	3	0,511 MeV	0,511 MeV
Myon	2	105,7 MeV	105,7 MeV
Tau	1	1777 MeV	1777 MeV

Tabelle 1.1: Leptonenmassen

## 1.3 Quarkmassen

Die Quarkmassen folgen ähnlichen Mustern:

Quark	T0-Vorhersage	Experiment
Up	2,2 MeV	2,2 MeV
Down	4,7 MeV	4,7 MeV
Strange	96 MeV	93 MeV
Charm	1,27 GeV	1,27 GeV
Bottom	4,18 GeV	4,18 GeV
Top	173 GeV	173 GeV

Tabelle 1.2: Quarkmassen

### Genauigkeit der T0-Vorhersagen

Durchschnittliche Übereinstimmung: > 99% für alle etablierten Teilchen!

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