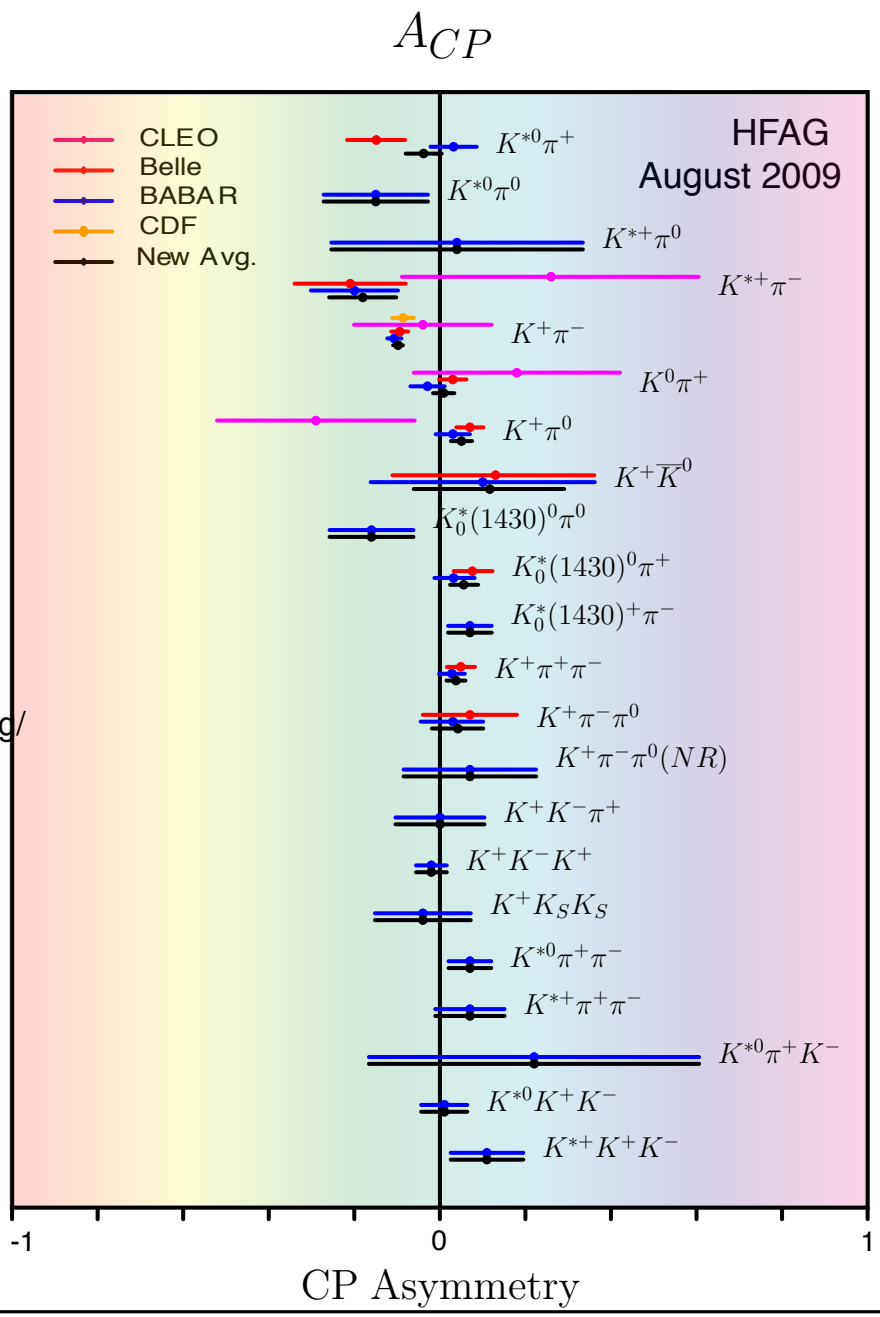
Material zur

Vorlesung ”Flavorphysik”

Gudrun Hiller, Dortmund

Direkte CP-Asymmetrien

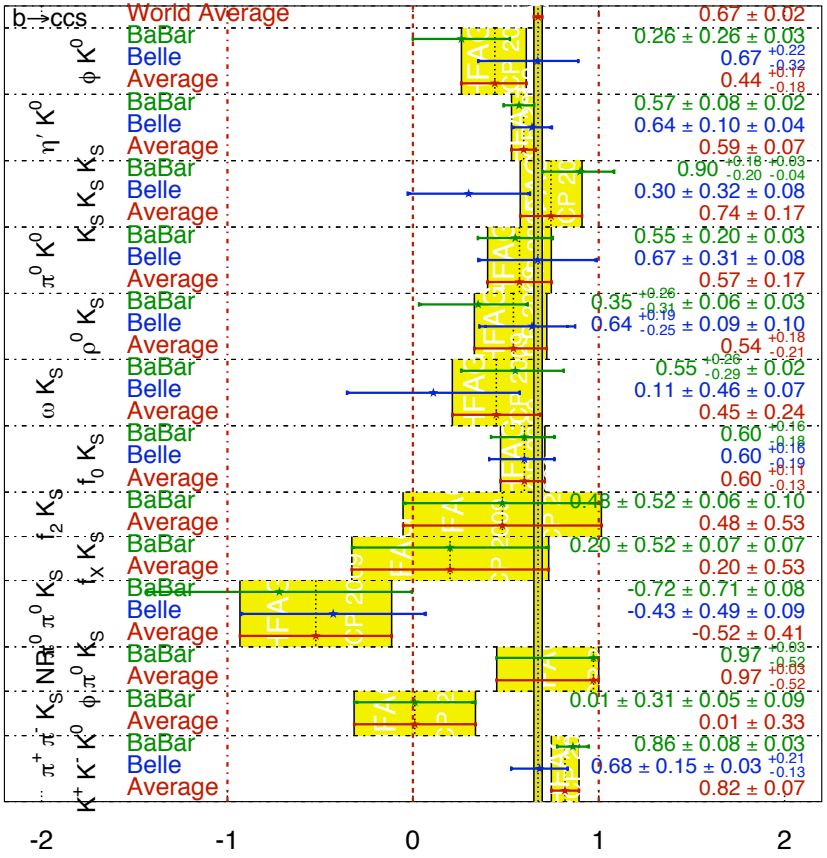


http://www.slac.stanford.edu/xorg/hfag/

CP-Verletzung in Pinguinen jenseits von CKM?

$$\sin(2\beta^{\text{eff}}) \equiv \sin(2\phi_1^{\text{eff}})$$

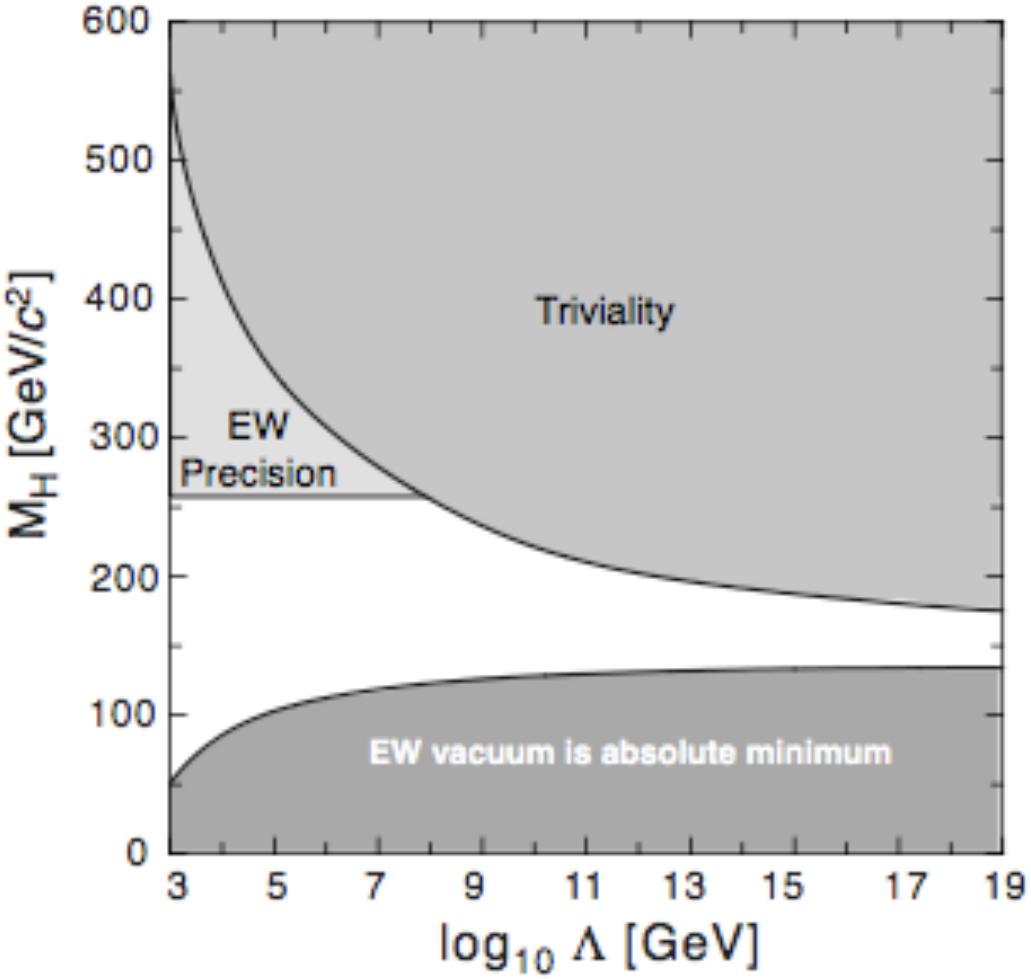
HFAG
FPCP 2009
PRELIMINARY



$$\eta_{\text{CP}} \sin 2\beta(\underbrace{(\bar{s}s)K_S}_{\text{FCNC}}) = \sin 2\beta(\underbrace{(\bar{c}c)K_S}_{tree}) + |\underbrace{\frac{V_{ub}V_{us}^*}{V_{tb}V_{ts}^*}}_{0.02}| \cdot \#(hadronic)$$

$$S_f = -\eta_{CP} \sin 2\beta^{\text{eff}}$$

SM Higgs Masse– Vorhersagen



C.Quigg, hep-ph/9905369

Fig. 4. Bounds on the Higgs-boson mass that follow from requirements that the electroweak theory be consistent up to the energy scale Λ. The upper bound follows from triviality conditions; the lower bound follows from the requirement that $V(v) < V(0)$. Also shown is the range of masses permitted at the 95% confidence level by precision measurements.

Wo ist das Higgs? Daten+Fits 2009

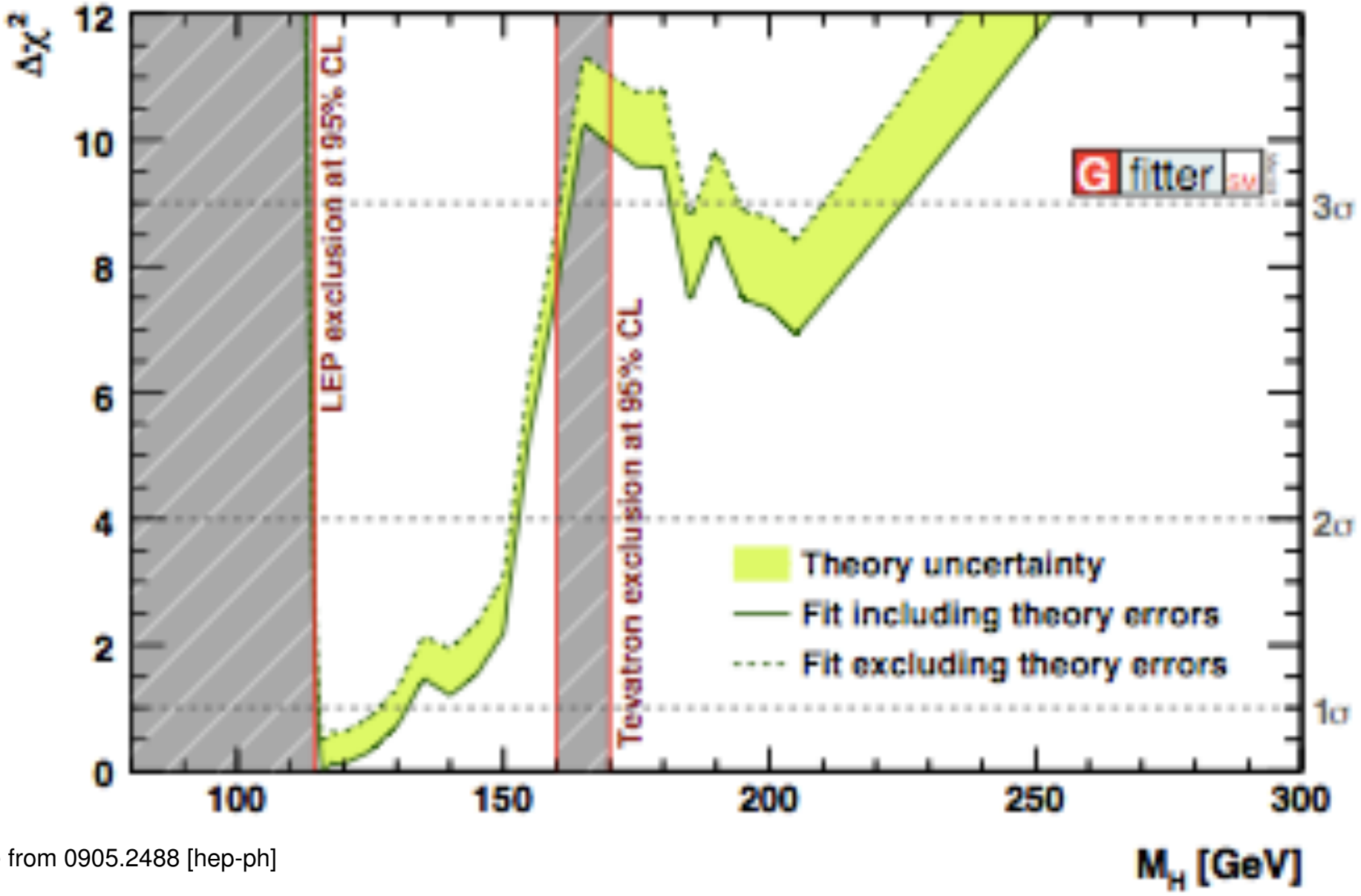


figure from 0905.2488 [hep-ph]