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 <h2>From the Planck Scale to the Electroweak Scale</h2>

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Quark masses from Planck-scale physics

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Asymptotic safety provides a framework for a UV-complete model of quantum gravity and matter. Within this framework, Renormalization Group flows allow to connect Planck-scale physics to the electroweak scale. I will present indications that asymptotically safe quantum gravity uniquely determines the top Yukawa coupling, resulting in a "retrodiction" of the top-quark mass close to its experimental value. Taking into account the non-trivial role of the U(1) hypercharge in the asymptotically safe setting, could moreover generate a mass difference between charged quarks and "retrodict" the bottom-quark mass.

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