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Precise prediction for the top quark width

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We present the first analytic results of N3LO QCD corrections to the top-quark decay width. We focus on the dominant leading color contribution, which includes light-quark loops. At NNLO, this dominant contribution accounts for 95% of the total correction. The most precise prediction for the top-quark width is now 1.321 GeV for mt = 172.69 GeV.

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