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High precision scale setting on the lattice

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Recently, the hadronic vacuum polarization contribution to the anomalous magnetic moment of the muon was determined by the BMW collaboration with sub-percent precision. Such a precision requires to control many sources of uncertainty. One of these is the uncertainty in the determination of the lattice spacing.

In this talk, we present the scale setting entering this computation. It relies on the mass of the Omega baryon as input which is directly used to set the scale of our main calculation. It also allows us to calculate the value of the intermediate scale setting quantity w_0 . Here, we present our calculation of this quantity with a relative precision of about 0.4%.

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