No 3-letter words

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What we know well from lattice

◐ Cross over at $T = 154 \pm 1.5$, and the chiral limit $T_c = 132 \pm 2$. Uses the observation of a similarity scaling of T and μ^2.

◐ Curvatures of the (pseudo) critical line

$$\frac{T_c(\mu)}{T_c} = 1 - \frac{1}{2}\kappa_2 \left(\frac{\mu}{T_c}\right)^2 - \frac{1}{4!}\kappa_4 \left(\frac{\mu}{T_c}\right)^4 + \cdots$$

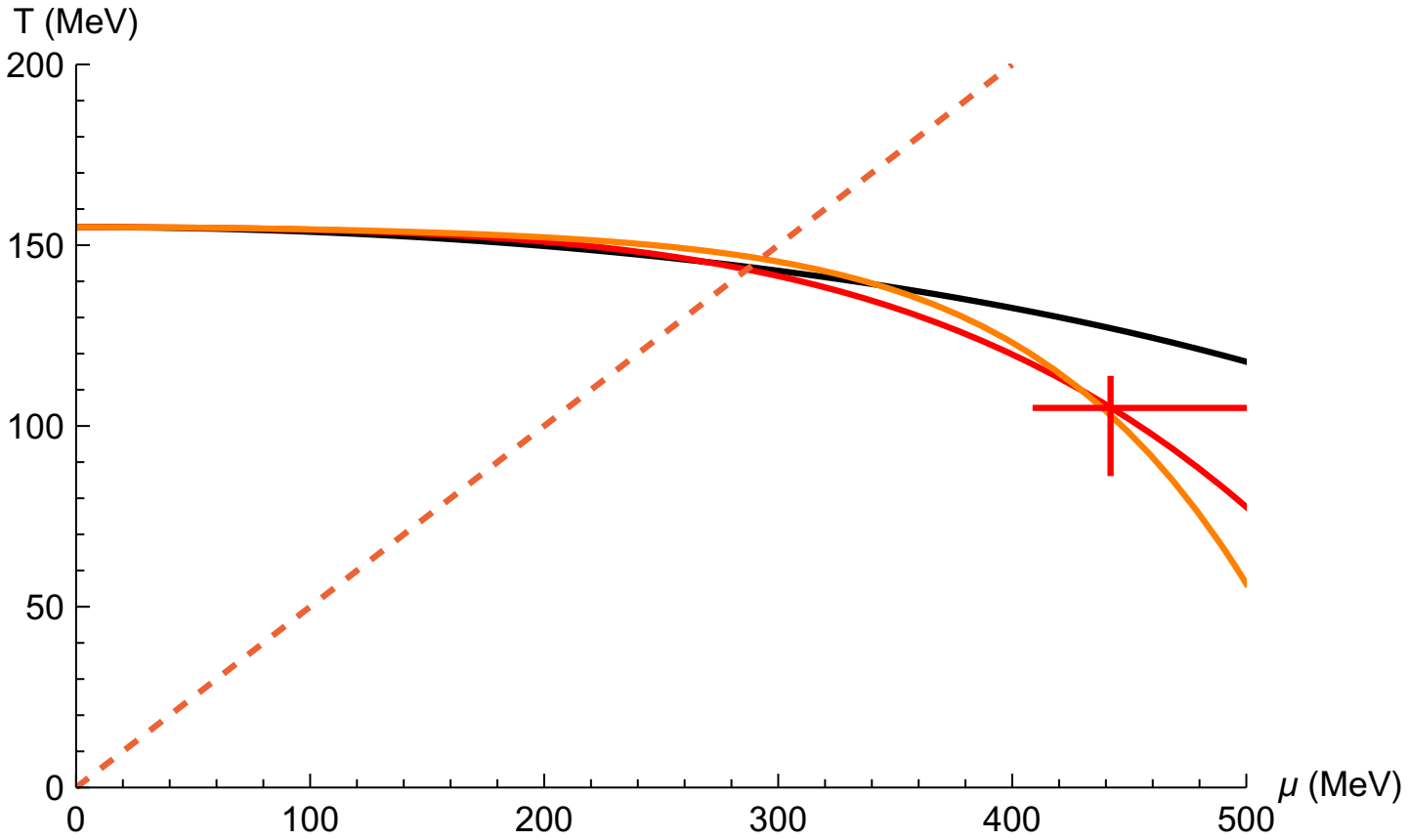
Well established and cross checked by various collaborations
$\kappa_2 = 0.016 \pm 0.005$ and $\kappa_4 = 0.002 \pm 0.006$

◐ If there is no change to the hyperscaling, then the critical line meets $T = 0$ at

$$\mu = 1475^{+35}_{-55}$$

◐ Radius of convergence of the Taylor expansion of the pressure is $\mu = 2T$. Mumbai result: $\mu_E = (1.85 \pm 0.04)\, T_E$.

What is less well known



Nuclear saturation density at $\mu \simeq 1000$ MeV