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## Finite temperature QCD with physical ( $u/d, s, c$ ) domain-wall quarks

*Wednesday, 28 July 2021 05:00 (15 minutes)*

I outline the simulation of lattice QCD with  $N_f = 2 + 1 + 1$  optimal domain-wall quarks at the physical point, on the  $64^3 \times (6, 8, 10, 12, 16, 20)$  lattices, for three lattice spacings  $a \sim 0.064 - 0.075$  fm. The quark masses and lattice spacings are determined at the zero temperature on the  $64^4$  lattice. The topological susceptibility of each gauge ensemble is measured by the Wilson flow. In this talk, I present the topological susceptibility  $\chi_t(a, T)$  of these gauge ensembles for temperature  $T \sim 150 - 520$  MeV, and also obtain  $\chi_t(T)$  in the continuum limit.

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