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Abstract for an Invited Paper
for the HAW09 Meeting of
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The QCD Phase Diagram from Lattice Regularized QCD

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We will discuss the status of studies of the QCD phase diagram through lattice QCD calculations at non-zero temperature and density. We will report on the calculations of the QCD transition temperature at vanishing chemical potential, on attempts to establish the universal structure of the chiral transition in the limit of vanishing quark mass and on the QCD equation of state with physical light and strange quark masses. At non-zero baryon chemical potential we will report on attempts to establish the existence of a critical point and comment on studies of higher moments of charge fluctuations that may serve as signatures for the QCD critical points.