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Gauge invariant non-perturbative production rate of photons and dileptons above T_c

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We analyze the production rates of photons and dileptons from the deconfined medium using a quark propagator obtained from a first principle lattice QCD numerical simulation. We calculate the production rates non-perturbatively at two temperatures above T_c . The photon-quark vertex is determined gauge-invariantly, so as to satisfy the Ward-Takahashi identity. The photon production rate shows an enhancement and a peculiar structure reflecting kinematics of quasi-particles. We discuss the origin of the structure.

On behalf of collaboration:

NONE

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