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Erratum

Photon production in relativistic heavy-ion collisions using rates with two-loop calculations from quark matter

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It has been shown recently [1] that the values of J_T and J_L which appear in (2) and (5) of the above paper and which are taken from the work of Aurenche et al [2] are too large by a factor of 4. Correcting for this changes the Fig. 1–4 (see below). The basic result of the paper, that the emissions from the quark matter can outshine those from the hadronic matter when the photon rates upto two-loop level are used, remains valid though the range of p_T over which it happens is reduced to $p_T < 0.5$, 1, and 2 GeV/c respecitively at SPS, RHIC, and LHC energies.

References

1. D. Dutta et al., P. Aurenche et al. Private Communication, F.D. Steffen, M. H. Thoma, hep-ph/0103044
2. P. Aurenche, F. Gelis, H. Zaraket, R. Kobes, Phys. Rev. D. **58**, 085003 (1998)

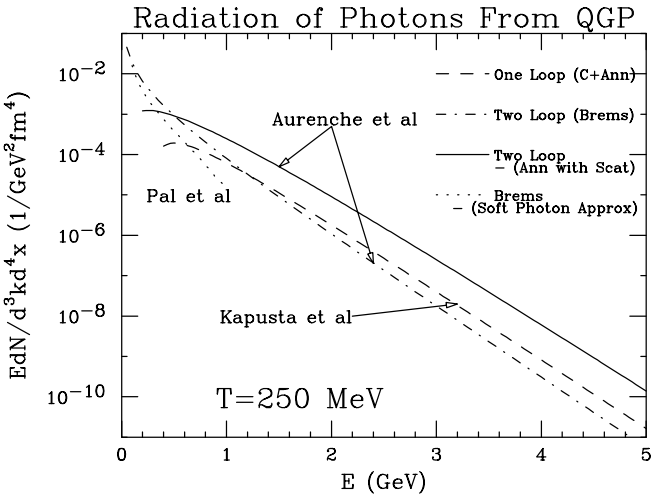

Fig. 1. Radiation of photons from various processes in the quark matter at $T = 250$ MeV

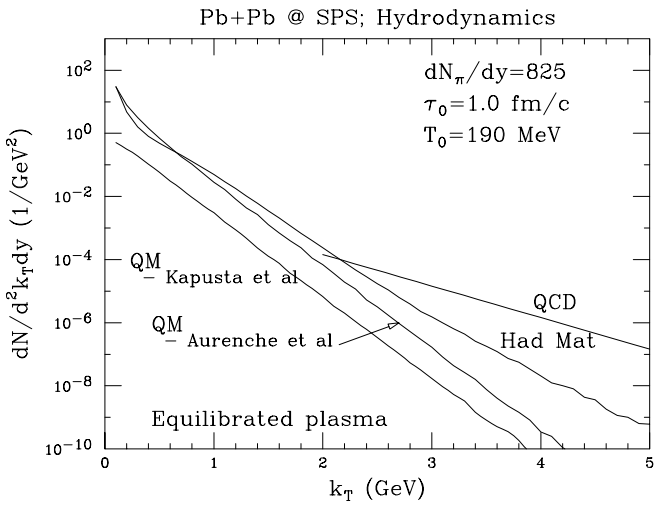

Fig. 2. Radiation of photons from central collision of lead nuclei at SPS energies from the hadronic matter (in the mixed phase and the hadronic phase) and the quark matter (in the QGP phase and the mixed phase). The contribution of the quark matter while using the rates obtained by Kapusta et al and Aurenche et al, and those from hard QCD processes are shown separately

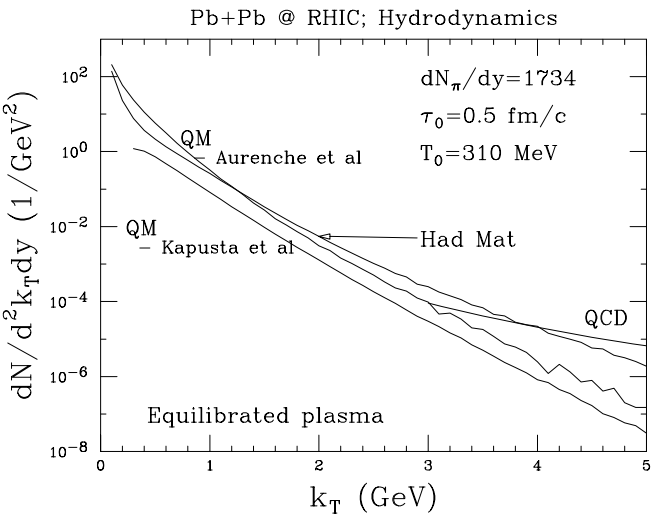

Fig. 3. Same as Fig. 2 for RHIC energies

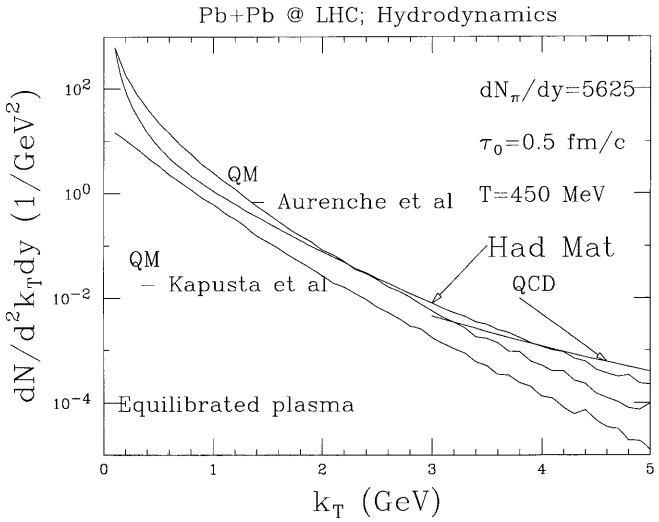

Fig. 4. Same as Fig. 2 for LHC energies