

Fragmentation of heavy flavors in a hot environment

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Heavy flavored mesons produced with high p_T in heavy ion collisions collisions, reveal several specific features of the production mechanism:

- (i) short time of jet formation by a highly virtual heavy quark;
- (ii) enhancement of the fragmentation function at large fractional momenta of the heavy meson;
- (iii) extremely short time of color neutralization and formation of the heavy flavored meson wave function;
- (iv) short mean free path in the medium (no color transparency); (v) the dead-cone effect in gluon radiation, and smallness of the QCD coupling lead to a considerable reduction of the rate of broadening (transport coefficient) of heavy vs light quarks. Non-universality of R_{AA} is confirmed by data, which are well described.

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