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Jet conversion photons from an anisotropic Quark-Gluon-Plasma

Content :

The p_T distributions of jet conversion photons from {\em Quark Gluon Plasma} with pre-equilibrium momentum-space anisotropy is calculated. A phenomenological model has been used for the time evolution of hard momentum scale $p_{\rm hard}(\tau)$ and anisotropy parameter $\xi(\tau)$. As a result of pre-equilibrium momentum-space anisotropy, we find significant modification of the jet conversion photon p_T distribution. For example, with {\em fixed initial condition} (FIC) pre-equilibrium anisotropy, we predict significant enhancement of the jet-photon p_T distribution in the entire region, whereas for pre-equilibrium anisotropy with {\em fixed final multiplicity} (FFM), suppression of the jet conversion photons p_T distribution is observed. The results with FFM (as it is the most realistic situation) have been compared with high p_T PHENIX photon data. It is found that the data is reproduced well if the isotropization time lies within 1.5 fm/c.

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