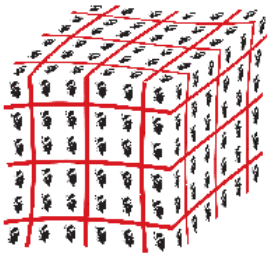

Contribution ID: **195** Type: **not specified**

Spectral properties of quarks above Tc – thermal mass, dispersion relation, and self-energy –

Friday, 18 June 2010 14:30 (20 minutes)

Spectral properties of quarks above the critical temperature for deconfinement are analyzed in quenched lattice QCD on lattices of size $128^3 \times 16$.
We study quark spectral function in energy and momentum space, focusing on the values of the thermal mass and the dispersion relations of normal and plasmino modes at nonzero momentum, as well as their spatial volume dependence. Our numerical result suggests that the dispersion relation of the plasmino mode has a minimum at nonzero momentum even near the critical temperature. The behavior of quark self-energy is also analyzed, which is found to be consistent with the spectral function extracted from the correlation function.

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talk

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