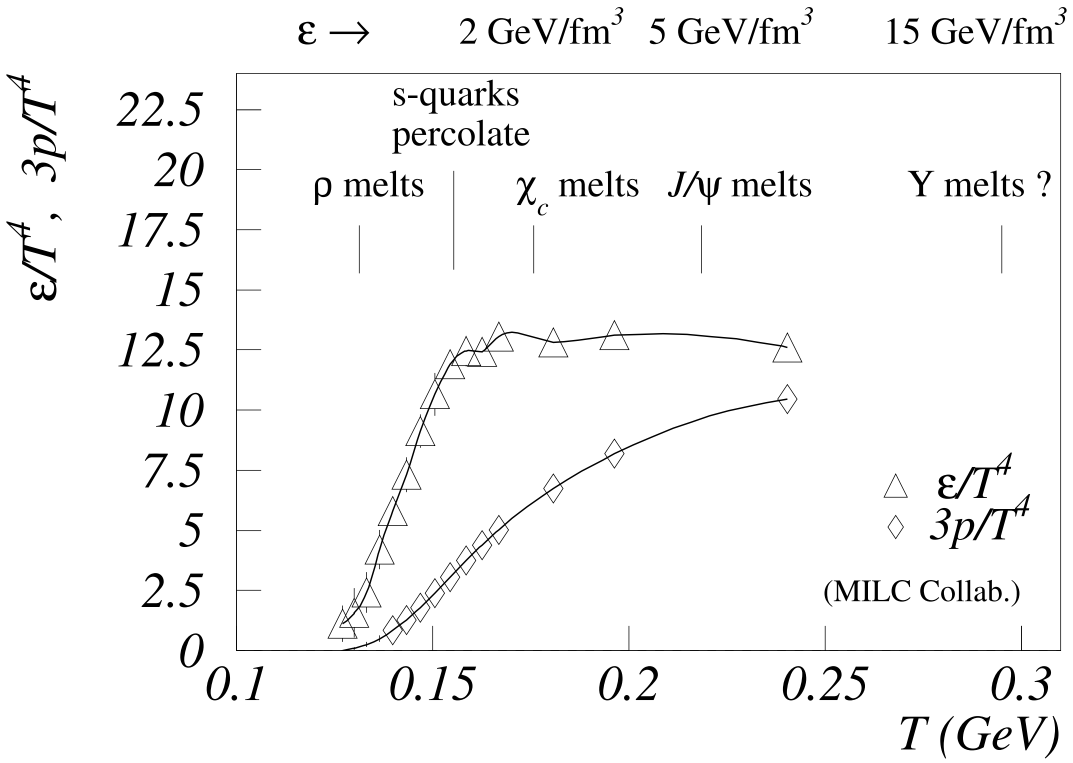
what does QCD tell us about the QGP ?

- non-perturbative regime, lattice-QCD ($\mu_B = 0$)
- predicts phase transition $T_c \sim 150 MeV$, $\epsilon_c \sim 1 Gev/fm^3$



observable consequences of transient QGP phase:

- rapid flavor/kinetic equilibration ($m_q < T$)
  - saturation/enhancement of strangeness
  - small event-to-event fluctuations
- thermal photon radiation due to high g, q density
  - $qg \to q\gamma^{(*)}$ and $q\bar{q} \to \gamma^{(*)}$, $\gamma^* \to l^+l^-$
- effect of deconfined medium on probes
  - screening of binding force $\Rightarrow J/\Psi$, Ψ' suppression