



Объединенный институт ядерных исследований
ЛАБОРАТОРИЯ ТЕОРЕТИЧЕСКОЙ ФИЗИКИ
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Семинар
"ТЕОРИЯ АДРОННОГО ВЕЩЕСТВА ПРИ ЭКСТРЕМАЛЬНЫХ УСЛОВИЯХ"

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Семинар состоится в среду,
3 сентября в 16.00
в аудитории им. Д. И. Блохинцева (4 этаж)

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Electromagnetic probes of the QGP

A review of the latest theoretical results on electromagnetic probes (direct photons and dileptons) of the QGP in heavy-ion collisions at ultra-relativistic energies will be presented. While the dilepton spectra at low invariant mass show in-medium effects like a collisional broadening of the vector mesons in their spectral functions, the dilepton yield at high invariant masses (above 1.1 GeV) is dominated by the QGP contributions for central heavy-ion collisions at ultra-relativistic energies.

Also we discuss the present status of the photon v_2 "puzzle one of the challenging topics related to the large elliptic flow v_2 of the direct photons experimentally observed at RHIC and LHC energies. It turns out that the photonic v_2 is as large as the hadronic v_2 , whereas many models predict a very small v_2 of photons from the QGP due to their early emission before the system has developed a sizeable momentum anisotropy. We investigate the role of hadronic and partonic sources for the photon spectra as well as the possibility to subtract the QGP signal from the experimental observables by studying the centrality dependence of the direct photon yield.