



## Семинар ЛФВЭ

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# Particle Production and Fluctuations in Heavy-Ion Collisions.

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Studying the collective properties of hot and dense hadronic matter is one of the main objectives of heavy-ion physics. The dependence of phase structure and effective degrees of freedom on the incident energy and system size likely provides fruitful tools to study the collective properties of hadronic matter. Particle production, correlations and dynamical fluctuations are studied in framework of the hadron resonance gas (HRG) model. We confront HRG-results to Lattice Gauge Theory and review the thermodynamic parameters and criteria for chemical freezeout. We derive the condition of the chemical freeze-out over a wide range of incident energies.

Recent references:

arXiv:1301.1828

[\[nucl-th"http://arxiv.org/abs/arXiv:1301.1828">\[nucl-th\]](http://arxiv.org/abs/arXiv:1301.1828)