Non-critical particle number fluctuations in heavy-ion collisions

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In the QCD phase diagram, vicinity of the critical point is accompanied with big changes of the susceptibilities. They should manifest themselves in the moments of the number distribution for conserved quantum numbers, e.g., the baryon number. Unfortunately, detectors cannot measure the baryon number, but only the number of stable protons. Also, in a real experiment, detectors cover just a part of the phase-space of the complete hadron production, which–in addition–conserves the baryon number. This talk will mention some of these non-critical effects and their influence on the observed moments of the proton number distribution.

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