Relativistic nuclear physics at the LHEP accelerator complex

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Methodological problems of investigations in the field of relativistic nuclear physics are considered. Basic notions and principles underlying the construction of scientific description of physical phenomena in the field of relativistic physics are discussed. Definitions of variables used for description of relativistic nuclear collisions are given. Various definitions of cumulative and collective processes of nuclei interaction are discussed. The role and significance of the Lobachevsky geometry in description of relativistic phenomena, in particular, particle production, are presented. The notion "elementary particle" is discussed. The problems of goal setting and optimization of experiments planned at the accelerator complex NICA are addressed.