SELF-SIMILARITY APPROACH IN RELATIVISTIC NUCLEAR PHYSICS

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A self-similarity approach to description of interaction of accelerated nuclei in the intermediate energy range is presented. This approach represents a relativistically invariant description of angular, energy, and A-dependences of inclusive hadron production cross sections in nuclear collisions. Special attention is paid to the description of cumulative, subthreshold processes at intermediate energies. Quantitative estimates for secondary particle production in fixed-target experiments at extracted beams of the NICA accelerator complex and heavy meson production in collider experiments with heavy nuclei are considered.