

ASYMPTOTICS OF DENSITY DISTRIBUTIONS, MOMENTUM DISTRIBUTIONS AND FORM FACTORS OF THREE-NUCLEON NUCLEI

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The structure functions of three-nucleon nuclei ${}^3\text{H}$ and ${}^3\text{He}$ are investigated, and asymptotics of density distributions of nucleons at large distances are established using bound state wave functions with high precision. Asymptotic behavior of nucleon momentum distributions at high momenta is verified in terms of potentials of interaction. It is noticed that the asymptotics of form factors of nucleons in three-particle systems at high momentum transfer didn't fit the asymptotics discussed by other authors in case of nucleon-nucleon potentials in gaussian form.

Keywords: three-nucleon nuclei, density distributions, momentum distributions, form factors, asymptotics.