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FEW-NUCLEON SYSTEMS IN THE BETHE-SALPETER APPROACH

In the report, the two- and three-nucleon systems are studied in the relativistic Bethe-Salpeter approach. The kernel of the nucleon-nucleon interaction is considered in a multirank separable form. This allows us to solve the Bethe-Salpeter equation for two-nucleon systems (deuteron, np-pair) as an algebraic one. For the three-nucleon system, the relativistic Bethe-Salpeter-Faddeev system of integral equations is solved. Using obtained amplitudes, the electromagnetic form-factors are calculated. Relativistic corrections due to the Lorentz transformations are also considered.

Section

Nuclear physics (Section 1)

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