

There is only one set of the correct values of f^F , f^D and f^S coupling constants in SU(3) invariant Lagrangian of the vector-meson-baryon interactions

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Collaboration

Abstract content

One can prove, there is generally eight various $\omega - \phi$ mixings forms in elementary particle physics, which on one side give different forms of the vector-meson-nucleon coupling constants through f^F , f^D and f^S in SU(3) invariant Lagrangian of the vector-meson-baryon interactions, and on the other side different signs of the universal vector-meson coupling constants f_ρ , f_ω and f_ϕ . Identical set of numerical values of f^F , f^D and f^S is evaluated only in that case, if the same $\omega - \phi$ mixing is applied to a derivation of the vector-meson-nucleon coupling constant forms and also to the signs of the universal vector-meson coupling constants f_ρ , f_ω and f_ϕ .

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