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Not all possible $\omega - \Phi$ mixing forms are physically acceptable.

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Starting from the mass matrix in the ω_8, ω_0 space and subsequently by its diagonalization into physical vector meson states $\omega(782), \Phi(1020)$ by means of the orthogonal matrix in the most general form, all eight possible forms of the ω - Φ mixing are derived. Taking into account the quark structure of the ω_8, ω_0 states and exploiting the ideal mixing angle value $\Theta = 35.3^\circ$ it is demonstrated that only four of them are physically acceptable, as only they are in conformity with experimentally observed decays of the $\omega(782)$ and $\Phi(1020)$ vector mesons.

Author: Prof. DUBNICKA, Stanislav (Inst.of Physics, SAS)

Presenter: Prof. DUBNICKA, Stanislav (Inst.of Physics, SAS)

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