

SOME PROPERTIES OF AXIAL ELECTRODYNAMICS

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Axial electrodynamics can be defined as gauge theory of massless spinor particles in respect to the $\exp\{i\lambda(x)\gamma^5\}$ transformation. The corresponding interaction lagrangian is

$$\mathcal{L} = e \bar{\psi} \gamma^\mu \gamma^5 \psi \cdot B_\mu(x)$$

where ψ ($\bar{\psi}$) is massless spinor field and $B_\mu(x)$ is an axial vector field. We discuss the problem of dynamical fermion mass generation, the problem of magnetic monopoles and some other problems of axial electrodynamics.