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Type: **Parallel-Goldstone Boson**

A theoretical analysis of the semileptonic decays

$$\eta^{(\prime)} \rightarrow \pi^0 l^+ l^- \text{ and } \eta' \rightarrow \eta l^+ l^-$$

A theoretical analysis of the C -conserving semileptonic decays $\eta^{(\prime)} \rightarrow \pi^0 l^+ l^-$ and $\eta' \rightarrow \eta l^+ l^-$ ($l = e$ or μ) is carried out within the framework of the Vector Meson Dominance model. A phenomenological model is then used to parametrise the VMD couplings and numerical values are obtained from an optimisation fit. The signature of CP -violating operators from the SMEFT on experimental observables is also investigated and quantified for the $l = \mu$ case.

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