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Model-independent constraints on extra neutral gauge bosons effective parameters at the future e^-e^+ colliders

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Future linear e^-e^+ colliders with an energy of $\sqrt{s} \geq 500$ GeV are the best options for searching and studying Z' due to the high sensitivity of the process $e^-e^+ \to f\bar{f}$ to the effects of Z' at high energies, and especially if there is a possibility of polarization of e^- and e^+ of the beams.
The current limits on the mass of Z' obtained from experiments on LHC correspond to the mass scale of $m_{Z'} \sim 5$ TeV, which significantly exceeds the planned energy of future e^-e^+ accelerators. Therefore, it is unlikely that accelerators are able to perform precision measurements of Z' characteristics. Most likely, it will be possible to investigate only indirect (virtual) effects of Z' caused by $\gamma - Z - Z'$ interference, which will manifest themselves as statistically distinguishable deviations of the observed from their behavior predicted by Standart Model (SM). If deviations of the observed from the behavior of the predicted SM are not experimentally detected at a given level of statistical significance, then experimental information will be presented in the form of restrictions on the characteristics of Z'.
An important and current task is to develop a strategy for obtaining constraints with greater accuracy, not using an increase in luminosity or collider energy, but using various optimal conditions and observables.

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