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On certain structures in dispersion relations for electrons and HOMO-LUMO-gap-effect

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We review some structures in dispersion relations for electrons leading via the Adler Bell Jakiw anomaly able to in magnetic and electric fields bringing electrons from one singularity simulating Weyl equation to another one. This may be of great interest. Further, we consider what we call the HOMO-LUMO-gap-effect, which we seek to define as a very general effect resulting from the back reaction of the fermions/the electrons on “bosonic” variables (what really means e.g. the positions of the ions or some smeared out properties or may be the electrons themselves). Such effects might be speculated to be used in some pre-standard model fundamental physics to lead to the appearance of Weyl particles.

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