

Review of: "Dimensional Regularization as Mass Generating Mechanism"

Nicolas Lori¹

¹ Universidade do Minho

Potential competing interests: No potential competing interests to declare.

The Quantum Field Theory self-energy and Dimensional Regularization and Pauli-Villars Regularization are all appropriately described, but there is an assumption which is in my perspective flawed and therefore compromises the conclusions of the work. The wrong assumption being that “observables obtained via PV and DR methods must coincide”, as actually they need only to coincide for the finite terms, but the divergent terms might diverge in different forms for the PV and DR approach. Moreover, the difference of divergence behavior between PV and DR is a likely reason for many physicists preferring the DR approach over the PV. The lack of a clear explanation of how the results in Table 2 are obtained is another negative aspect of the work, as although the numbers are intriguing, it is hard to fathom what might be correct or incorrect about Table 2.