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True self energy function, mixing and reducibility in effective scalar theories.

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I discuss the renormalization of the one-loop 2-leg functions in multi-component effective scalar theory. It is shown that only a part of numerous contributions that appear in the general expression for 2-leg graph can be considered as the true self energy function. This part is completely fixed by two conventional requirements – correctness of the pole position and the wave function normalization. This part is the only one which should be taken into account in the conventional process of simming Dyson's chain that results in explicit expression for the full propagator in S-matrix graphs. The other parts provide well defined finite corrections for the graphs with the number of legs n>2.
It is also shown that there is no need in attracting the prescriptions for the higher derivatives of the 2-leg function on the mass shell: the requirements of finiteness and diagonability turn out quite sufficient.

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