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Weak factorization for Ds->KKK decay mode

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The modeling of heavy hadrons into light ones'decay modes presents a problem, the weak dynamics factorization. There are some proposals for it, for instance, the MMM (Multi Meson Model) applied to D-> KKK, models the weak part of the amplitude using D's decay constant and its momentum. This is possible as long as the main contribution to the amplitude comes from the annihilation topology, D-> W-> KKK. For the Ds-> KKK decay mode there are other topologies that could be dominant over the annihilation topology, as the radiation topology, Ds-> W phi-> KKK. The current work is focused on presenting an alternative for the weak factorization based on chiral lagrangians and its application on the Ds-> KKK's radiation topology.

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