Making an analogy between a multi-chain interaction in Charge Density Wave transport and the use of wave functionals to form S-S' pairs. ANDREW BECKWITH — First, we show through a numerical simulation that the massive Schwinger model used to formulate solutions to CDW transport in itself is insufficient for transport of soliton-antisoliton (S-S') pairs through a pinning gap model of CDW transport. We show that a model Hamiltonian with Peierls condensation energy used to couple adjacent chains (or transverse wave vectors) permits formation of S-S' pairs which could be used to transport CDW through a potential barrier .Previously, we have argued that there are analogies between this construction and the false vacuum hypothesis used for showing a necessary and sufficient condition for formation of CDW S-S' pairs in wavefunctionals. Here we note that this can be established via either use of the Bogomil'nyi inequality or an experimental artifact which is due to use of the false vacuum hypothesis to obtain a proportional 'distance' between the S-S' charge centers.

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