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Higher order correction to the RG β -function for the 3-d Anderson localization transition at unitary symmetry TOMOYUKI NAKAYAMA, KHANDKER MUTTALIB, University of Florida, PETER WÖLFLE, Karlsruhe Institute of Technology — We have recently calculated the β -function of the conductance for Anderson Metal-Insulator transition including contributions from the ballistic regime. In three dimensional unitary case, the result of two-loop order diagrams is $\beta(g)=1-a/g$, where a is a constant and g is the dimensionless conductance. However, this result is valid only if there is no diagram with extra diffusons which contributes to the order of $1/g$. We show that diagrams with extra diffuson propagators only have higher order contributions in the ballistic regime, which confirms our previous result.

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