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The asymptotic behaviour of the many-body wave-function

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We study how short range correlations emerge from the nuclear wave-function.
To this end we analyze the asymptotic behaviour of the coupled cluster
many-body wave-function in the limit of highly excited two- and three-particles states.
We find that in this limit the different coupled cluster amplitudes
exhibit a recurring behaviour, factorizing into a common asymptotic two- or three-body term.
These asymptotic terms depend on the potential and in general are system
specific. They are connected to the 2- and 3-body zero-energy
Bloch-Horowitz operators.

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