Contribution ID: **104**   Type: **Contributed Talk**

The asymptotic behaviour of the many-body wave-function

Tuesday, 1 August 2023 15:25 (15 minutes)

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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Session Classification: Tuesday Parallel Session: Few- and many-body systems (Atrium Maximum)