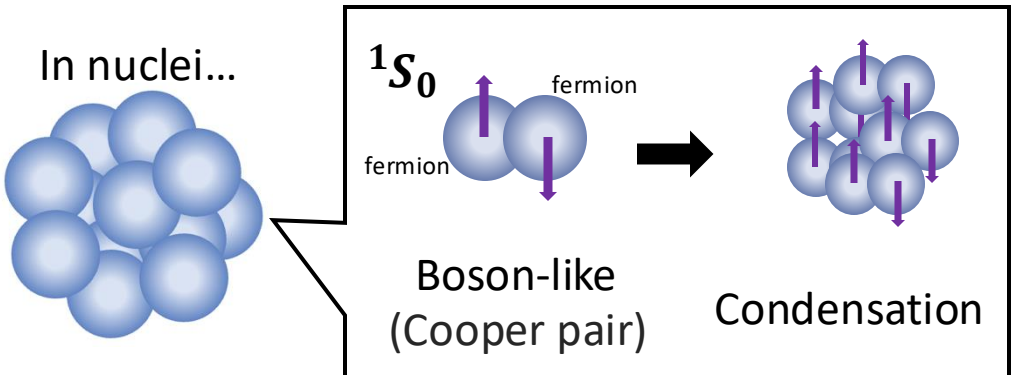


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Pair condensation in nuclei (BCS)

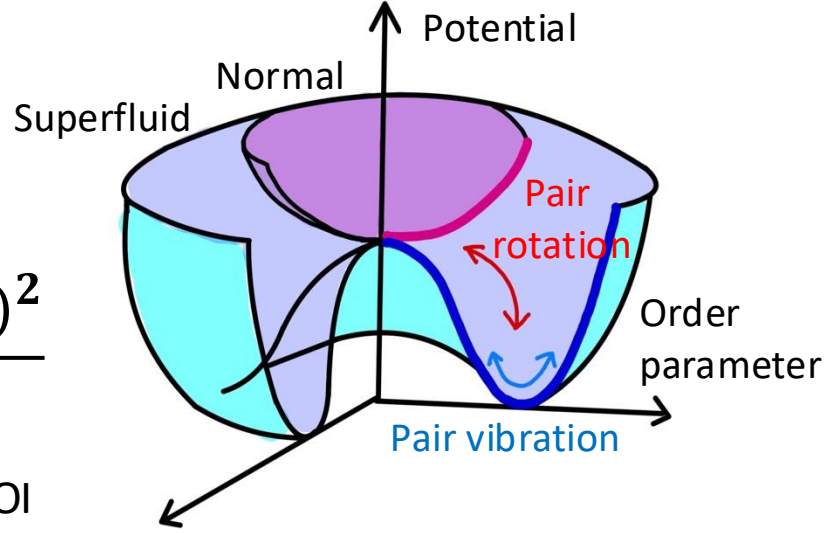


Pairing rotation

Pairing rotational energy

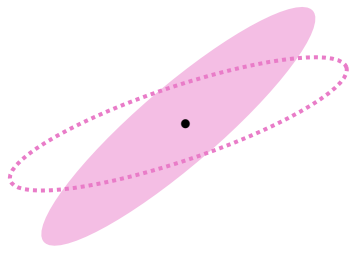
$$E_{\text{pair}}(N) = \frac{(N - N_0)^2}{2\mathcal{J}}$$

Pairing MOI



MOI and pairing MOI (moment of inertia): order parameter dependence

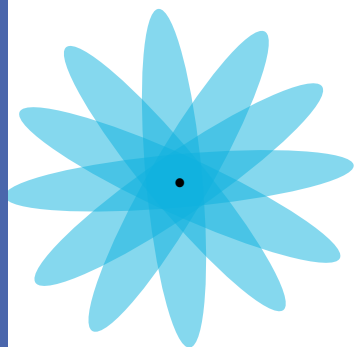
Spatial rotation (in the real space)



(Order parameter)
Deformation $\beta \rightarrow$ large
MOI \rightarrow large

Intrinsic state

Pair rotation (in the number gauge space)



(Order parameter)
Pair amplitude $\langle c \uparrow c \downarrow \rangle \rightarrow$ large
Pairing MOI \rightarrow **small**

Intrinsic state

We proved the relation between the pair amplitude and the pairing MOI qualitatively