(a) $\widehat{N}$ operator covariance
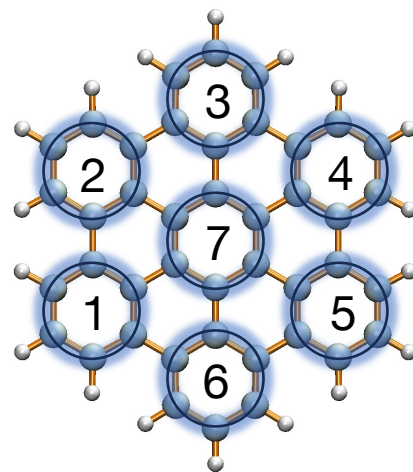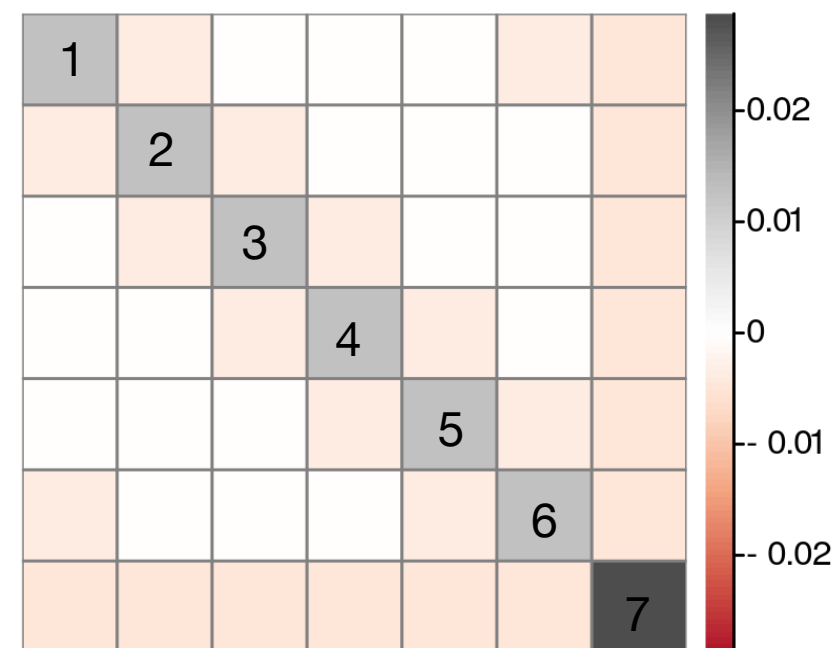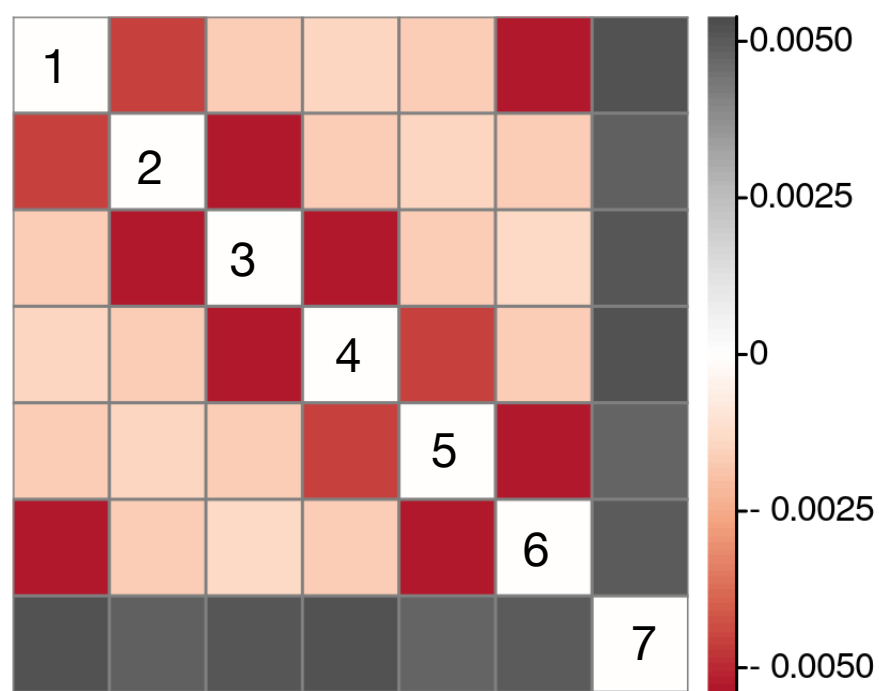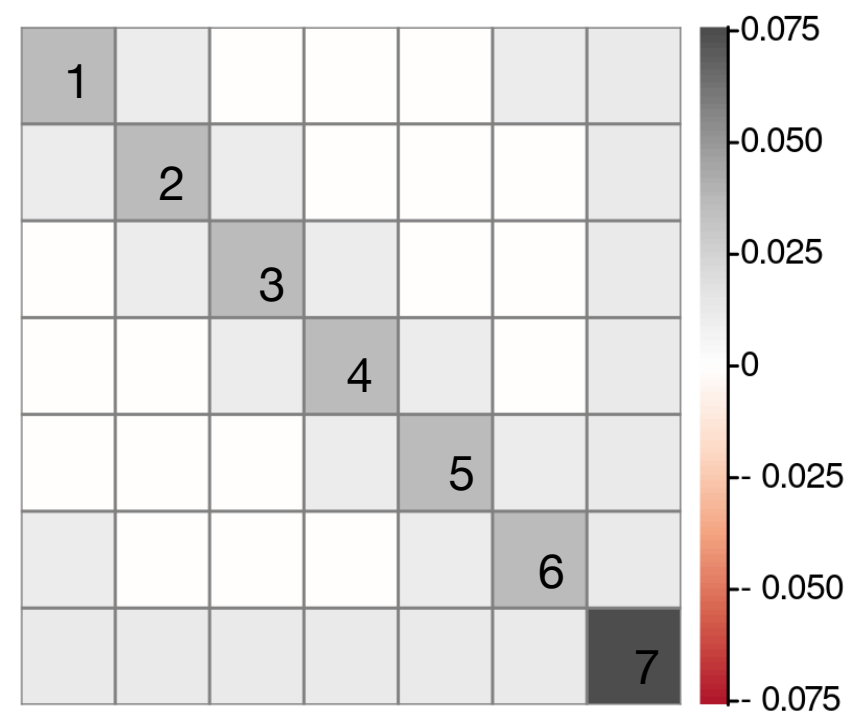
(b) Hexabenzocoronene

(c) $\hat{S}^z$ operator covariance

(d) Difference between $\widehat{N}$ and $\hat{S}^z$ operator correlation

(e) Correlation between cumulants of excitations outside reference space