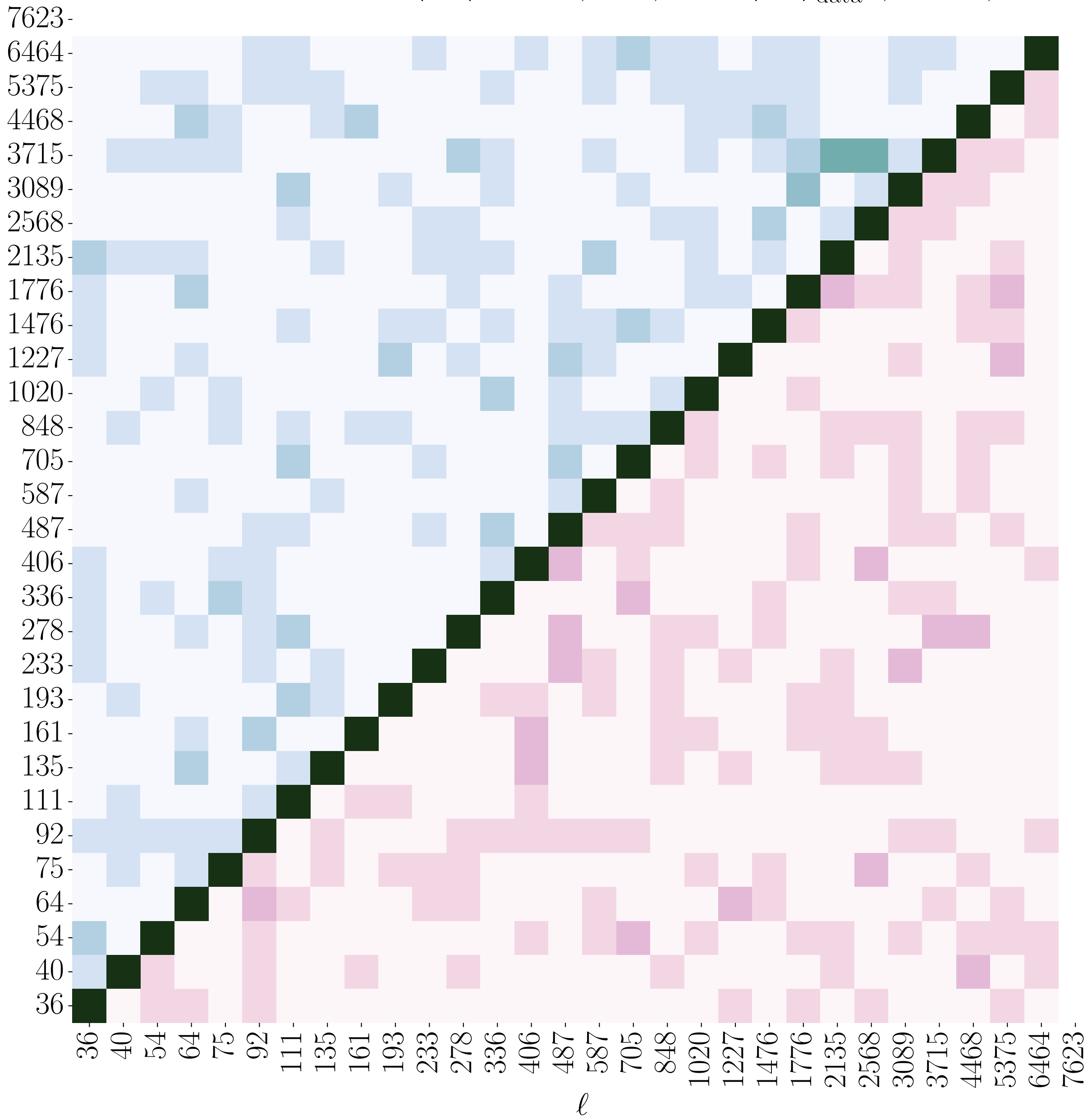Correlations for $\langle\hat{\kappa}\hat{\kappa}\rangle - \hat{N}$ (Blue) and $\langle\kappa\kappa\rangle_{\mathrm{data}}$ (Purple)