Notes on paper – Cross validation strategies for data with temporal, spatial, hierarchical, or phylogenetic structure, Roberts (2016)

* Block cross-validation better estimates prediction errors. It addresses prediction optimism, arising from non-independent hold-out or from overfitting data dependence with covariates.
* May help more if address the effect of overfitting on parameter estimation or on model selection.
* Some cross validations on data with residuals leads to unexpectantly large errors on the data that can be misleading.
* In cases where the assumption of independence is compromised or where model extrapolation is likely, cross-validations with non-random blocks, carefully chosen in light of modelling objectives, can offer more reliable error estimates. Where blocked approach is not necessary, better safe than sorry as doesn’t take much away from random cross validation.
* By overestimating predictive confidence this may sacrifice scientific credibility.