

Update on Cross Validation Papers

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Parsimonious OM Grid

- When conducting Management Strategy Evaluation using an Operating Model conditioned on a stock assessment often a full factorial design is used based on scenarios reflecting uncertainty in difficult to estimate parameters, data weights and model specification.
- The aim of this paper is to evaluate the use of more parsimonious designs using the OM grids developed for Atlantic bluefin tuna, North Atlantic and Indian Oceans albacore and swordfish.
- The Operating Models are grouped into clusters based on their i) summary statistics (e.g. production functions, reference points and current status) and ii) time series.
- If the performance of a MP depends on i) summary or ii) time series then it is only necessary to run a limited number of OM from each cluster.
- This hypothesis is tested by performing a cross validation where an OM is selected from each cluster and a MSE conducted. This is then repeated for another set of OMs by cluster and the performance of the MPs compared.

To Do

Rishi & Iago

- Provide OM grids for IOALB, IOSWO, NAALB, NASWO and EABFT.

Laurie

- Look at correlations between summary statistics
- Implement an empirical and model based MP

Laurie & Rishi

- Look at correlations between time series

Polina

- Create Table summarising grids

Iago

- Run MSE
- select 1 OM from each cluster
- run the MSE and summarise results
- select another OM from each cluster and
- compare the results if they are the same then we dont need to run all OMs