

# ETC3550/ETC5550 Applied forecasting

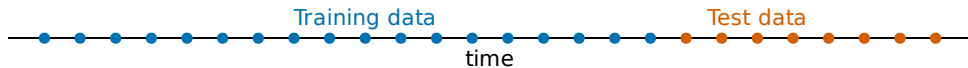
## Week 4: The Forecasters' toolbox

[af.numbat.space](http://af.numbat.space)



# Time series cross-validation

## Traditional evaluation

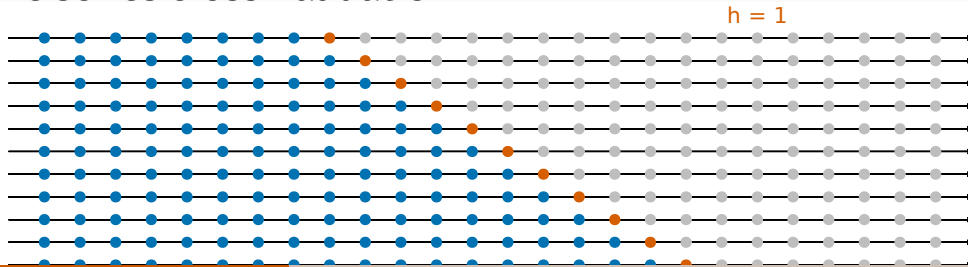


# Time series cross-validation

## Traditional evaluation

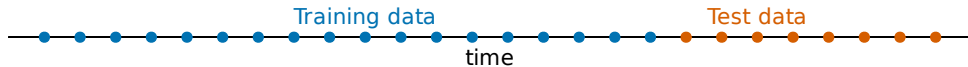


## Time series cross-validation

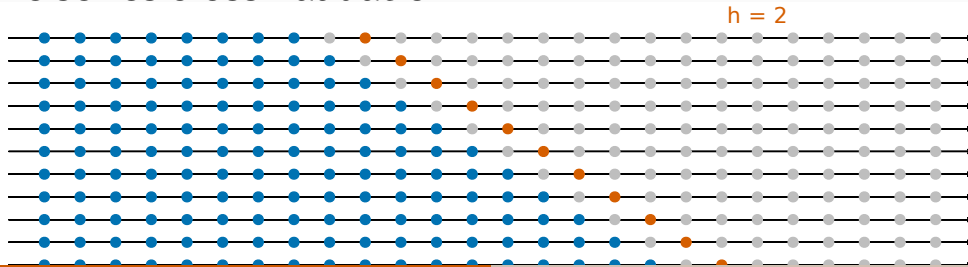


# Time series cross-validation

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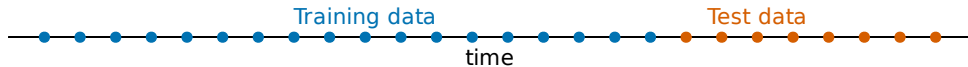


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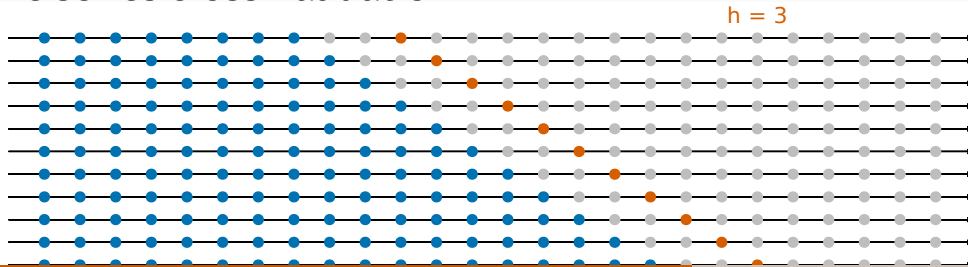


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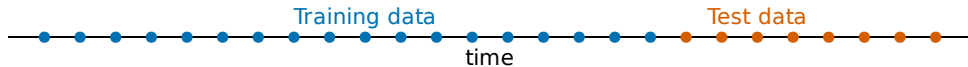


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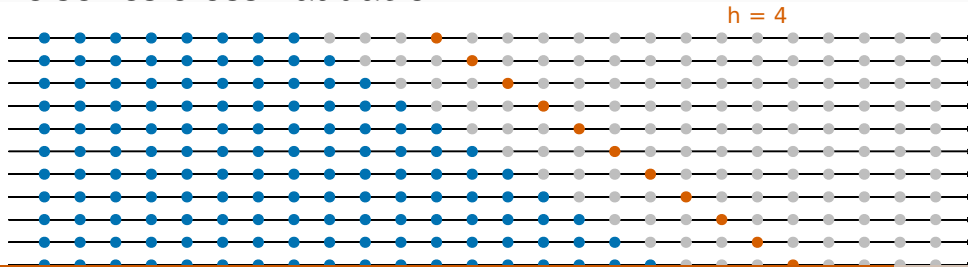


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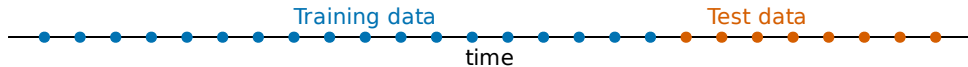


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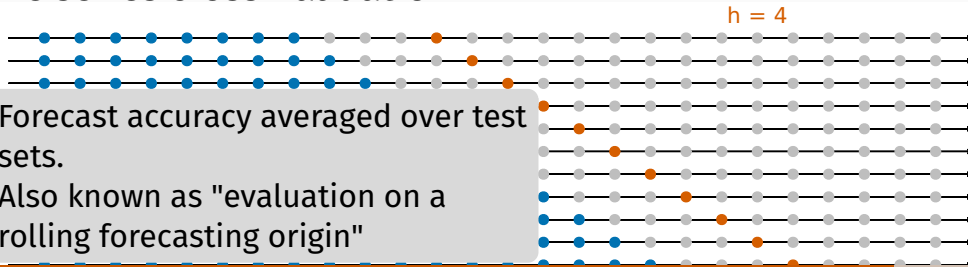


# Time series cross-validation

## Traditional evaluation



## Time series cross-validation



- Forecast accuracy averaged over test sets.
- Also known as "evaluation on a rolling forecasting origin"

# Your turn

- 1 Create a training set for household wealth (`hh_budget`) by withholding the last four years as a test set.
- 2 Fit all the appropriate benchmark methods to the training set and forecast the periods covered by the test set.
- 3 Compute the accuracy of your forecasts. Which method does best?
- 4 Do the residuals from the best method resemble white noise?