



# Python for Time Series

- Evaluating Forecasts
- We're already familiar with:
  - MAE
  - MSE
  - RMSE
- But we still haven't touched on AIC and BIC



# Python for Time Series

- AIC - Akaike Information Criterion
  - Developed by Hirotugu Akaike in 1971.
  - His publication on it is one of the top 100 most cited publications of all time!
  - AIC is now such a common metric, many writers no longer cite the original paper.



# Python for Time Series

- AIC - Akaike Information Criterion
  - The AIC evaluates a collection of models and estimates the quality of each model **relative** to the others.
  - **Penalties** are provided for the **number of parameters** used in an effort to thwart overfitting.



# Python for Time Series

- AIC - Akaike Information Criterion
  - Overfitting results in performing very well on training data, but poorly on new unseen data.



# Python for Time Series

- BIC - Bayesian Information Criterion
  - Very similar to AIC, just the mathematics behind the model comparisons utilize a Bayesian approach.
  - Developed in 1978 by Gideon Schwarz