

# Calibration

# Kennedy and O'Hagan

Kennedy and O'Hagan (2001)

It is also potentially                    when                    is slow, giving small                    .

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(Many thanks to  $\tilde{A}q\tilde{A}l\tilde{D}$  sänk l s<sup>3</sup> l c l PP th hanăto  $\tilde{A}nk\tilde{P}l\tilde{A}p$















The thing to keep in mind is that the calibration apparatus couples two highly flexible nonparametric GP models, linked by a tuning parameter .

- It will find a way to use that flexibility to its advantage,
- especially when coping with a data-generating mechanism which may not be faithful to the GP modeling assumptions (and when is it ever?).

Authors looking for more flexible GP models have deliberately deployed similar tactics outside the calibration setting.

- Ba and Joseph (2012) (<https://projecteuclid.org/euclid.aoas/1356629062>) coupled two GPs to deal with heteroskedasticity.



# Cross-validation

When we have two models and we don't know which is best,



Leave-o



