Efficient acquisition rules for model-based approximate Bayesian computation

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Problem formulation & our contributions

- **Goal:** Bayesian inference for a simulation model
- **Challenges:** Intractable likelihood, simulation of the model computationally costly
- **Our approach:** Formulate the ABC inference problem in Bayesian framework
    - Surrogate modelling to account the "computational" uncertainty in the ABC posterior
    - New evaluation location chosen to minimise the expected uncertainty in the (unnormalised) ABC posterior
    - We provide practical algorithm under GP modelling assumptions

Illustration
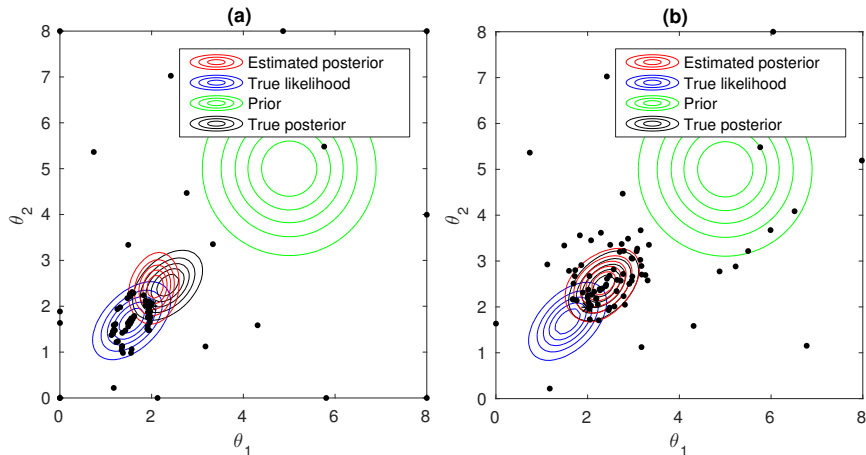
For details, come to our poster and see our full paper in
`https://arxiv.org/abs/1704.00520`.