

Diacanis, 1986; Kodanc, 1985; Tony O'Hagan, 1982  
 John Skilling 1991  
 Solve DE's for Bayesian

" Probabilistic numerical models the numerical uncertainty & propagates a probabilistic <sup>spread of error</sup> ~~collapses~~ <sup>collapses</sup> then subsequent computation.

e.g. Data-driven engineering in Petrochemical & Populna

Oil field as elliptic PDE:

e.g. Science Signaling - pharmacokinetics  
 e.g. Computational social science  
 London ~~police~~ <sup>first sum of</sup> most solvers work series of basis function (cf. Whitehead)

e.g. Sandia screw-jets in flame  
 + tra in a turbine at small scale.

- help model combustion process

'call ode 45'

- increase decrease mesh sizes, but posterior don't show biasing, only ~~precise~~ <sup>precise</sup> If take ~~most~~ induced uncertainty into acc, then the bias shows.

Shult, 2008  
 Way of incorporating uncertainty in accuracy & quantify uncertainty in pipeline of computation; New role for statisticians...  
 e.g. i.e. sheet flow; ~~star~~

What about inverse of co-variance matrix? algebraic error?

[B] Dunning; Sreena Patel; Texaco card discarded → allowed  
 Texaco to become biggest supermajor chain in UK  
 "olive lists" <sup>consumption</sup>  
 Have you ~~of~~ forgotten 40% of people actually add something to the list  
 - also incremental purchase - trip that you would not have otherwise purchased  
 1. <sup>recognition</sup>  
 2. <sup>recognition</sup>  
 3. <sup>recognition</sup>  
 4. <sup>recognition</sup>

Until recently: "rules-based"  
 Now: "relaxing model": predict a customer's probability of conversion & to recommend items  
 Some people go straight to checkout.