Topics

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18:23 14 September 2015

1. stochastic simulation (stochastic ODE, discrete- and continuous-time Markov processes) (GillespieSSA, smfsb)
2. classical time-series (ARIMA) models (Diggle 1990)
3. trajectory/gradient matching (Ellner, Seifu, and Smith 2002; Bolker 2008; Raue et al. 2013)
4. Kalman filtering (basic & ensemble) (Schnute 1994; Bolker 2008)
5. MCMC: (Bolker 2008) JAGS/BUGS, Stan
6. sequential MC/particle filtering: pomp (Ionides, Bretó, and King 2006; Bhadra and Dhiman 2011; King et al. 2008)
7. synthetic likelihood (Wood 2010) (synlik; pomp probe-matching)
8. Approximate Bayesian computation (Csilléry et al. 2010) (abc; EasyABC)
9. Integrated Nested Laplace Approximation (INLA; Rue, Martino, and Chopin (2009); more papers)
10. NIMBLE
11. data cloning (Ponciano et al. (2009); dclone)
12. spatiotemporal models

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