

fitR contents

Functions

burnAndThin	Burn and thin MCMC chain
computeDIC	Compute the DIC
computeDistanceABC	Compute the distance between a model and data for ABC
dLogPosterior	Posterior distribution for a fitmodel
dTrajObs	Log-likelihood of a trajectory for a deterministic model
fitmodel	Constructor of fitmodel object
margLogLikeSto	Marginal log-likelihood for a stochastic model
mcmcMH	Metropolis-Hasting MCMC
particleFilter	Run a particle filter for fitmodel object
plotESSBurn	Plot Effective Sample Size (ESS) against burn-in
plotFit	Plot fit of model to data
plotHPDregion2D	2D highest posterior density region
plotPosteriorDensity	Plot MCMC posterior densities
plotPosteriorFit	Plot MCMC posterior fit
plotSMC	Plot result of SMC
plotTrace	Plot MCMC trace
plotTraj	Plot model trajectories
rTrajObs	Generate an observation trajectory for a fitmodel
simulateFinalStateAtExtinction	Simulate model until extinction
simulateModelReplicates	Simulate several replicate of the model
simulateModelStochastic	Simulate forward a stochastic model
testFitmodel	Test a fitmodel

Data sets

FluTdC1971 Time-series of the 1971 influenza epidemic in Tristan-da-Cunha

Models

SEIT2L_deter	The deterministic SEIT2L model with constant population size
SEIT2L_stoch	The stochastic SEIT2L model with constant population size
SEIT4L_deter	The deterministic SEIT4L model with constant population size
SEIT4L_stoch	The stochastic SEIT4L model with constant population size
SEITL_deter	The deterministic SEITL model with constant population size
SEITL_stoch	The stochastic SEITL model with constant population size
SIR	A simple deterministic SIR model with constant population size
SIR_exp	A simple deterministic SIR model with constant population size and parameters on the exponential scale
SIR_reporting	A simple deterministic SIR model with constant population size and reporting rate
SIR_stoch	A simple stochastic SIR model with constant population size