Keyword Index

absolute continuous change of measure; hyperbolic distributions; hyperbolic Levy motion; option pricing; statistical analysis of stock price data; 281

approximate inference; approximate likelihood; approximate transition density; discrete observations; Euler-Maruyama; Ornstein-Uhlenbeck; stochastic differential equation; 257

approximate likelihood; approximate transition density; discrete observations; Euler-Maruyama; Ornstein-Uhlenbeck; stochastic differential equation; approximate inference; 257

approximate transition density; discrete observations; Euler-Maruyama; Ornstein-Uhlenbeck; stochastic differential equation; approximate inference; approximate likelihood; 257

asymptotic efficiency; efficient influence curve; empirical process; 335

backward trees; branching populations; large time limits; local extinction; persistence; spatially inhomogeneous critical branching; superprocess limits; 171

Bayes-type tests; complete class; cone order monotonicity; cone ordering; convexity; dual cone; likelihood ratio test; matrix order alternative; unbiased tests; 321

bivariate normal distribution; concomitants of order statistics; convergence in distribution; extreme values maximum; 245 branching populations; large time limits; local extinction; persistence; spatially inhomogeneous critical branching; super-process limits; backward trees; 171

branching processes; dependence; population dynamics; renewal theory; 191

Brownian motion; disconnection exponent; intersection exponent; 371

characterizations; iteration of random functions; random walks on matrices; 381

complete class; cone order monotonicity; cone ordering; convexity; dual cone; likelihood ratio test; matrix order alternative; unbiased tests; Bayes-type tests; 321

concomitants of order statistics; convergence in distribution; extreme values maximum; bivariate normal distribution; 245 cone order monotonicity; cone ordering; convexity; dual cone; likelihood ratio test; matrix order alternative; unbiased tests; Bayes-type tests; complete class; 321

cone ordering; convexity; dual cone; likelihood ratio test; matrix order alternative; unbiased tests; Bayes-type tests; complete class; cone order monotonicity; 321

convergence in distribution; extreme values maximum; bivariate normal distribution; concomitants of order statistics; 245 convergence rate; density estimation; differentiability; dilation equation; kernel method; non-parametric curve estimation; orthogonal series; regression; scaling function; smoothness; wavelet; 41

convexity; dual cone; likelihood ratio test; matrix order alternative; unbiased tests; Bayes-type tests; complete class; cone order monotonicity; cone ordering; 321

cross-validation; epidemiology; kernel density estimation; smoothing parameters; 3

density estimation; differentiability; dilation equation; kernel method; non-parametric curve estimation; orthogonal series; regression; scaling function; smoothness; wavelet; convergence rate; 41

dependence; population dynamics; renewal theory; branching processes; 191

differentiability; dilation equation; kernel method; non-parametric curve estimation; orthogonal series; regression; scaling function; smoothness; wavelet; convergence rate; density estimation; 41

diffusion processes; Gaussian limits; time-scales; 81

dilation equation; kernel method; non-parametric curve estimation; orthogonal series; regression; scaling function; smoothness; wavelet; convergence rate; density estimation; differentiability; 41

Dirichlet processes: Ito's formula; local time; quadratic covariation; Stratonovich integral: 149

disconnection exponent; intersection exponent; Brownian motion; 371

discrete observations; Euler-Maruyama; Ornstein-Uhlenbeck; stochastic differential equation; approximate inference; approximate likelihood; approximate transition density; 257

discrete-time sampling; inference for diffusion processes; optimality; quasi-likelihood; simulation; stochastic differential equation; 17

dual cone; likelihood ratio test; matrix order alternative; unbiased tests; Bayes-type tests; complete class; cone order monotonicity; cone ordering; convexity; 321

efficient influence curve; empirical process; asymptotic efficiency; 335 empirical process; asymptotic efficiency; efficient influence curve; 335 epidemiology; kernel density estimation; smoothing parameters; cross-validation; 3

398 Keyword Index

Euler-Maruyama; Ornstein-Uhlenbeck; stochastic differential equation; approximate inference; approximate likelihood; approximate transition density; discrete observations; 257

extreme point; sets of uniqueness; 217

extreme values maximum; bivariate normal distribution; concomitants of order statistics; convergence in distribution; 245

first passage density; Rice's formula; level crossings; surface reconstruction; Gaussian field; random field; 301

functional central limit theorem; IBNR claims; Poisson clustering point process; Poisson shot noise process; risk reserve model; 125

Gaussian field; random field; first passage density; Rice's formula; level crossings; surface reconstruction; 301 Gaussian limits; time-scales; diffusion processes; 81

hybrid zones; water model interfaces; random walk; recurrent potential kernel; stochastic spatial model; 343

hyperbolic distributions; hyperbolic Levy motion; option pricing; statistical analysis of stock price data; absolute continuous change of measure; 281

hyperbolic Levy motion; option pricing; statistical analysis of stock price data; absolute continuous change of measure; hyperbolic distributions; 281

IBNR claims; Poisson clustering point process; Poisson shot noise process; risk reserve model; functional central limit theorem; 125

inference for diffusion processes; optimality; quasi-likelihood; simulation; stochastic differential equation; discrete-time sampling; 17

intersection exponent; Brownian motion; disconnection exponent; 371

iteration of random functions; random walks on matrices; characterizations; 381

Ito's formula; local time; quadratic covariation; Stratonovich integral; Dirichlet processes; 149

kernel density estimation; smoothing parameters; cross-validation; epidemiology; 3

kernel method; non-parametric curve estimation; orthogonal series; regression; scaling function; smoothness; wavelet; convergence rate; density estimation; differentiability; dilation equation; 41

large time limits; local extinction; persistence; spatially inhomogeneous critical branching; superprocess limits; backward trees; branching populations; 171

level crossings; surface reconstruction; Gaussian field; random field; first passage density; Rice's formula; 301

likelihood ratio test; matrix order alternative; unbiased tests; Bayes-type tests; complete class; cone order monotonicity; cone ordering; convexity; dual cone; 321

local extinction; persistence; spatially inhomogeneous critical branching; superprocess limits; backward trees; branching populations; large time limits; 171

local time; quadratic covariation; Stratonovich integral; Dirichlet processes; Ito's formula: 149

lower bounds; nonparametric estimation; parameter estimation; quadratic risk; semi-parametric models; 59

matrix order alternative; unbiased tests; Bayes-type tests; complete class; cone order monotonicity; cone ordering; convexity; dual cone; likelihood ratio test; 321

measures of dependence; path behaviour; Poisson random measure; self-affinity; stable processes; self-similarity; stationarity of increments; 201

non-parametric curve estimation; orthogonal series; regression; scaling function; smoothness; wavelet; convergence rate; density estimation; differentiability; dilation equation; kernel method; 41

nonparametric estimation; parameter estimation; quadratic risk; semi-parametric models; lower bounds; 59

optimality; quasi-likelihood; simulation; stochastic differential equation; discrete-time sampling; inference for diffusion processes; 17 option pricing; statistical analysis of stock price data; absolute continuous change of measure; hyperbolic distributions; hyperbolic Levy motion; 281

Ornstein-Uhlenbeck; stochastic differential equation; approximate inference; approximate likelihood; approximate transition density; discrete observations; Euler-Maruyama; 257

orthogonal series; regression; scaling function; smoothness; wavelet; convergence rate; density estimation; differentiability; dilation equation; kernel method; non-parametric curve estimation; 41

parameter estimation; quadratic risk; semi-parametric models; lower bounds; nonparametric estimation; 59

path behaviour; Poisson random measure; self-affinity; stable processes; self-similarity; stationarity of increments; measures of dependence; 201

persistence; spatially inhomogeneous critical branching; superprocess limits; backward trees; branching populations; large time limits; local extinction; 171

Poisson clustering point process; Poisson shot noise process; risk reserve model; functional central limit theorem; IBNR claims; 125