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Descrizione fisica	1 online resource (XVI, 114 p. 51 illus., 2 illus. in color.)
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Disciplina	621.382
Soggetti	Signal processing Image processing Speech processing systems Statistics Probabilities Mathematical statistics Signal, Image and Speech Processing Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences Probability Theory and Stochastic Processes Probability and Statistics in Computer Science
Lingua di pubblicazione	Inglese
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Nota di contenuto	Introduction -- Factual Description of Accident and Available Information -- Bayesian Approach -- Inmarsat Satellite Communication System -- Aircraft Cruise Dynamics -- Aircraft Maneuver Dynamics -- Particle Filter Implementations -- Validation Experiments -- Application to MH370 Accident -- Incorporating Search Data -- Conclusions.
Sommario/riassunto	This book demonstrates how nonlinear/non-Gaussian Bayesian time series estimation methods were used to produce a probability distribution of potential MH370 flight paths. It provides details of how the probabilistic models of aircraft flight dynamics, satellite communication system measurements, environmental effects and radar data were constructed and calibrated. The probability distribution was used to define the search zone in the southern Indian Ocean. The book

describes particle-filter based numerical calculation of the aircraft flight-path probability distribution and validates the method using data from several of the involved aircraft's previous flights. Finally it is shown how the Reunion Island flaperon debris find affects the search probability distribution.