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Adaptive algorithms for target tracking.

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Abstract : The quality of the tracking is greatly enhanced by arobust motion estimation. The objective is to develop a target tracking algorithm of amoving object, especially motion estimation of these. To realize the estimate, we chose stochastic filtering techniques. He concern the Kalman filter in the linear Gaussian, and sequential MonteCarlo methods in the nonlinear. Representation of state is permanently adapted according oncurrent observations, to best represent the system dynamics. Accomparison of the results given by the extended Kalman filterand particle filter is realized into simulation of the nonlinear systems target tracking.

Keywords : stochastic filtring, Kalman filter, Extended Kalman Filter, Monte Carlo Method, Particle filtre, Target tracking