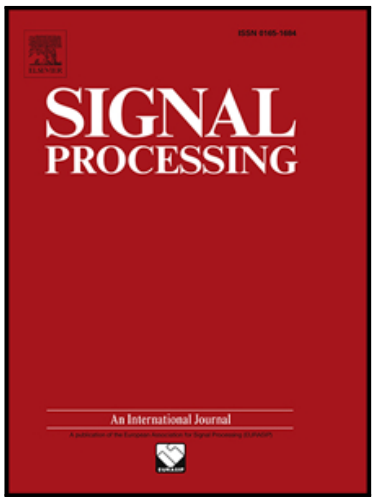

Estimation of maneuvering target in the presence of non-Gaussian noise: a coordinated turn case study

G. Yu. Kulikov, M.V. Kulikova

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Highlights

- The novel maximum-correntropy-criterion-based extended Kalman filters are devised for treating continuous-time nonlinear stochastic models with non-Gaussian noise.
- The radar tracking scenarios, where an aircraft executes a coordinated turn, are set up with impulsive and mixed-Gaussian noises.
- The maximum-correntropy-criterion-based extended Kalman filters are examined numerically and compared to the continuous-discrete extended, cubature and unscented Kalman filters.
- The contemporary cubature- and unscented-type Kalman filters outperform all their competitors in the accuracy of state estimation in the non-Gaussian target tracking case studies.