

9th IET Data Fusion & Target Tracking Conference 2012 (DF&TT 2012)

Algorithms & Applications

IET Conference Publications 595

**London, United Kingdom
16-17 May 2012**

ISBN: 978-1-62276-195-1

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2012) by the Institution of Engineering and Technology
All rights reserved.

Printed by Curran Associates, Inc. (2012)

For permission requests, please contact the Institution of Engineering and Technology
at the address below.

Institution of Engineering and Technology
P. O. Box 96
Stevenage, Hertfordshire
U.K. SG1 2SD

Phone: 01-441-438-767-328-328
Fax: 01-441-438-767-328-375

www.theiet.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Video Analytics: Past, Present, and Future	1
<i>C. Lewis</i>	
Geolocation: Maps, Measurements and Methods	6
<i>F. Gustafsson</i>	
Box-particle Intensity Filter	54
<i>M. Schikora, A. Gning, L. Mihaylova, D. Cremers, W. Koch, R. Streit</i>	
A Bayesian Look at the Optimal Track Labelling Problem	60
<i>E. H. Aoki, Y. Boers, L. Svensson, P. Mandal, A. Bagchi</i>	
Decentralised Road-map Assisted Ground Target Tracking Using a Team of UAVS	66
<i>Hyondong Oh, Seungkeun Kim, A. Tsourdos, B. White</i>	
Track Degradation As a Consequence of Distributed Sensor Fusion	72
<i>P. F. Easthope</i>	
Performance of Bearing-only ESM-radar Track Association	78
<i>C. R. Offer</i>	
Person Tracking Via Audio and Video Fusion	84
<i>E. D'Arca, N. M. Robertson, J. Hopgood</i>	
Bayes Optimal Knowledge Exploitation for Target Tracking with Hard Constraints	90
<i>F. Papi, M. Podt, Y. Boers, G. Battistello, M. Ulmke</i>	
Particle Learning Methods for State and Parameter Estimation	96
<i>C. Nemeth, P. Fearnhead, L. Mihaylova, D. Vorley</i>	
An Application of Sequential Monte Carlo Samplers: an Alternative to Particle Filters for Non-linear	
Non-gaussian Sequential Inference with Zero Process Noise	102
<i>S. Maskell</i>	
Unsupervised Learning of Maritime Traffic Patterns for Anomaly Detection	110
<i>M. Vespe, I. Visentini, K. Bryan, P. Braca</i>	
Tracking and Managing Real World Electric Vehicle Power Usage and Supply	115
<i>G. A. Hill, P. T. Blythe, V. Suresh</i>	
Noise Power Estimation Under Generalized Detector Employment in Automotive Detection and	
Tracking Systems	121
<i>M. S. Shbat, V. Tuzlukov</i>	
Gaussian Mixture PHD Filter for Multi-target Tracking Using Passive Doppler-only Measurements	125
<i>M. B. Guldogan, U. Orguner, F. Gustafsson</i>	
Optimized Instrumental Density for Particle Filter in Track-before-detect	131
<i>A. Lepoutre, O. Rabaste, F. Le Gland</i>	
Author Index	