

SEMINAR NOTICE

Department of Electrical and Systems Engineering

Tracking in a Maritime Context

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Abstract: As noted in the 2006 Quadrennial Defense Review, there is a national consensus to improve our maritime domain awareness to impede terrorism, piracy, or illegal drug activities. Significant problems in tracking vessels of interest on the high seas are limited sensors, long lapses in position updates, and imprecise feature measurements. Advanced technologies can help improve traditional tracking performance by focusing on the following characteristics: (1) nonlinear dynamics, (2) non-Gaussian measurements of location and/or features, (3) associating imperfect feature measurements with vessels, (4) discrete multiple modes of dynamics (fishing vs. cruising), and (5) features that may evolve in time.

A tracking algorithm that handles such characteristics will be presented along with a discussion of methods to validate the system performance.

Monday, April 13, 2009

10:00 a.m.

Bryan Hall, Room 305

Host: Arye Nehorai

Bio: Les Servi received a Ph.D. from Harvard University in 1981 and has worked at Bell Labs, Verizon Labs, MIT and Harvard University (on a 9 month sabbatical leave), the Communication Division and later the Sensor Division of MIT Lincoln Laboratory, and is currently working in the Economic and Decision Analysis Center of The MITRE Corporation. He has been an associate editor of Operations Research, Management Science, and INFORMS Journal on Computing, Chair of INFORMS Applied Probability Society and INFORMS Telecommunication Society, a INFORMS Board subdivision representative, a INFORMS member of the Executive Committee to the Board (and its Treasurer). He is an elected INFORMS Fellow, the Chair of the INFORMS Boston Chapter, and recently nominated to run for an election to be the next President-Elect of INFORMS. He has published 40 papers in professional journals, 1 letter in the Wall Street Journal, has 2 original formulae in the CRC Standard Mathematical Tables and 11 US patents.