13th European
Signal Processing
Conference
September 4-8, 2005
Antalya
Turkey

AN IMPROVED VARIABLE TAP−LENGTH ALGORITHM FOR STRUCTURE ADAPTATION (MonAmOR7)

✱ Author(s) : Yu Gong (Queen's University of Belfast, United Kingdom)

Colin Cowan (Queen's University of Belfast, United Kingdom)

✱ Abstract : This paper investigates the variable tap−length algorithm for structure adaptation. Among existing algorithms, the Segmented Filter (SF) and Gradient Descent (GD) algorithms are of interest as both can track the tap−length variations quickly. In this paper, we first compare the SF and GD algorithms and show that each has advantages/disadvanges relative to the other. Then we propose an improved variable tap−length algorithm which not only has better performance, but also has less complexity, than existing algorithms. The proposed algorithm has great significance in both theory and applications.

Menu