Abstract
Recursive and least squares methods for identification of non-minimum-phase linear time-invariant (NMP-LTI) FIR systems are developed. The methods utilize the second- and third-order cumulants of the output of the FIR system whose input is an independent, identically distributed (i.i.d.) non-Gaussian process. Since knowledge of the system order is of utmost importance to many system identification algorithms, new procedures for determining the order of an FIR system using only the output cumulants are also presented. To illustrate the effectiveness of the methods, various simulation examples are presented.