



A GENERAL APPROACH TO THE DERIVATION OF BLOCK MULTICHANNEL FAST QRD-RLS ALGORITHMS (MonAmOR7)

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★ **Abstract :** Multichannel Fast QR Decomposition Recursive Least Squares (QRD-RLS) adaptive filtering algorithms have been mostly treated in the literature for channels of equal orders. However, in many applications, such as in the case of Volterra filtering, multichannel algorithms tailored for unequal orders are desirable. In this paper, a general formulation for deriving block versions of the Multichannel Fast QRD-RLS algorithms is introduced. The block type multichannel algorithms favor parallel processing implementations and also attain the reduced computational complexity and numerical robustness of the Fast QRD algorithms.