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Junqiao You, Qihui Chen and Yi Wang* (ywang2@aum.edu), Auburn University
Montgomery, Department of Mathematics, P.O. Box 244023, Montgomery, AL 36124. *Univariate
3-channel Wavelet Filter Banks from Centrally Symmetric Matrices.*

In this note, we design a family of univariate three channel wavelet filter banks by using centrally symmetric matrices. We offer an explicit structure for centrally symmetric and orthogonal matrix of order 3 and then use it to generate filter banks. For low pass filter of this type, the matrix extension to construct high pass filters is easy to realize. (Received September 11, 2007)