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Mladen Victor Wickerhauser\* (victor@math.wustl.edu), Department of Mathematics, Washington University, One Brookings Drive, Saint Louis, MO 63130. *Custom factorizations of wavelet filter transforms.* Preliminary report.

It is well known that perfect reconstruction wavelet filter transforms may be factored into lifting steps. A recent result of Wei ZHU shows that these steps need only use nearest-neighbor data. Similar ideas lead to custom factorizations. We describe the proof and discuss some applications of the resulting best-choice algorithm. (Received August 03, 2007)