983-42-568 **Richard A. Zalik*** (zalik@auburn.edu), Department of Mathematics, Auburn University, AL 36849-5310. *On MRA Riesz Wavelets.*

Hernández, Gripenberg, Wang and Weiss have characterized the set of MRA orthonormal wavelets in $L^2(\mathbb{R})$, i. e., given a function ψ, they found necessary an sufficient conditions for ψ to be an orthonormal wavelet associated with a multiresolution analysis. Motivated by these results we study the following problem: Given an MRA $\{V_j; j \in \mathbb{Z}\}$ and a function $\psi \in L^2(\mathbb{R})$, find conditions for ψ to be a Riesz wavelet such that $\psi \in V_1$. (Received September 11, 2002)