1046-40-2037 Corneliu Alexandru Bodea* (cornel.bodea@richmond.edu), 28 Westhampton Way, University of Richmond, UR 1552, Richmond, VA 23173, and Matthew F Der (matt.der@richmond.edu), Calina Anamaria Copos (calina.copos@richmond.edu) and David O'Neal (david.j.oneal@gmail.com). Sequence Design in Wireless Communication.

We provide new theorems that describe when two sequences have the same Non-Periodic Autocorrelation Function (NPAF). Knowledge of the NPAF can be used to determine the Peak-to-mean envelope power ratio (PMEPR), a key measure of the suitability of the sequence for use in the wireless transmission scheme known as Orthogonal Frequency Division Multiplexing (OFDM). This poster provides background on OFDM, a brief summary of recent work by Fiedler and Jedwab demonstrating the importance of knowledge of "Shared Autocorrelation Property", and an overview of our new results. We also include preliminary results of our search for new near-Golay sequences and other low power sequences. (Received September 16, 2008)