

1030-37-122

Dogan Comez* (dogan.comez@ndsu.edu), Department of Mathematics, North Dakota State University, P.O. Box 5075, Fargo, ND 58105-5075. *The modulated ergodic Hilbert transform*. Preliminary report.

In this talk we examine the ergodic Hilbert transform modulated by bounded sequences. We prove that sequences which are universally good for ordinary ergodic averages, those belonging to the subfamily W^α of the sequence class W_1 and to the class of bounded sequences having controlled variation are good modulating sequences for the ergodic Hilbert transform. The techniques developed also yield that bounded W_1 -sequences are good modulating sequences, provided that some restrictions on the functions are assumed. (Received July 27, 2007)