

1086-42-1336 **Nasser Dastrange*** (dastrange@bvu.edu), 610, West Fourth Street, Storm Lake, IA 50588.
Walsh Fourier Analysis and Grey Codes. Preliminary report.

It is well known that Walsh functions can be written as the product of Rademacher functions, which preserve the order of zero crossing.

In this talk we will generate Walsh functions by using binary and Grey codes. Walsh functions can be used in Fourier analysis to generate Walsh Fourier series and transforms.

Additionally, some interesting properties, examples, graphs, and recent research of the Walsh Fourier analysis will be presented. (Received September 21, 2012)