

# Some developments of the weighted EGZ theorem

Arie Bialostocki

(joint work with Matthew Conroy)

It has been conjectured that for  $n$  even if  $A$  and  $B$  are two zero sum sequences, over  $Z_n$ , each of length  $n$ , then there exists a permutation which permutes the elements of  $B$  resulting a sequence  $B'$  such that the inner product of  $A$  and  $B'$  is 0 in  $Z_n$ . First, we extend the above conjecture to  $n$  odd, provided  $A$  and  $B$  do not belong to two exceptional cases. Next, we provide some information about the exceptional cases and other cases of interest.