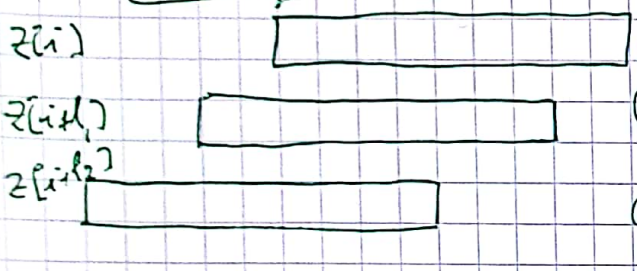
April 12 2018

Big TRA:



in this drawing, $l_1 \geq 0$, $l_2 \geq 0$.

to have overlap:

(a)-(b): $-(L-1) \leq l_1 \leq L-1$

(a)-(c): $-(L-1) \leq l_2 \leq L-1$

(b)-(c): $-(L-1) \leq l_2 - l_1 \leq L-1$

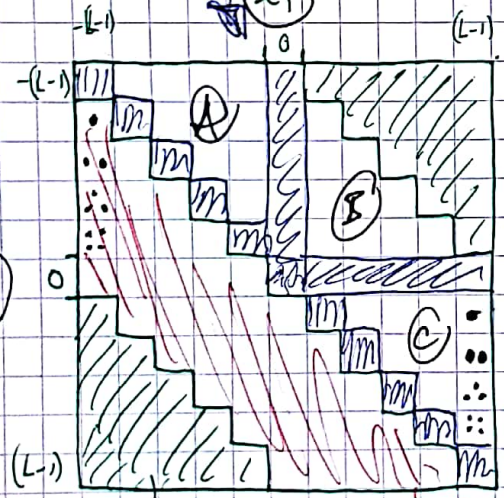
outside these bounds, the three copies do not all overlap.

bias when two shifts are the same:

$l_1 = 0$;

$l_2 = 0$;

$l_1 = l_2$;



$L = 6$

not needed by symmetry $(l_1, l_2) \sim (l_2, l_1)$

excluded by (b)-(c) overlap

Other symmetry: $(l_1, l_2) \sim (-l_1, l_2 - l_1)$ (~ $(l_1 - l_2, -l_2)$)

see points: doesn't remove anything extra: also tried numerically on bigger examples.

The three triangles A, B, C all give exactly the same information.

SEE selecting_moments.m

+ bias exclusions.

B is: $0 \leq l_1 \leq (L-1)$, $-(L-1) \leq l_2 \leq 0$ and $l_1 - l_2 \leq (L-1)$