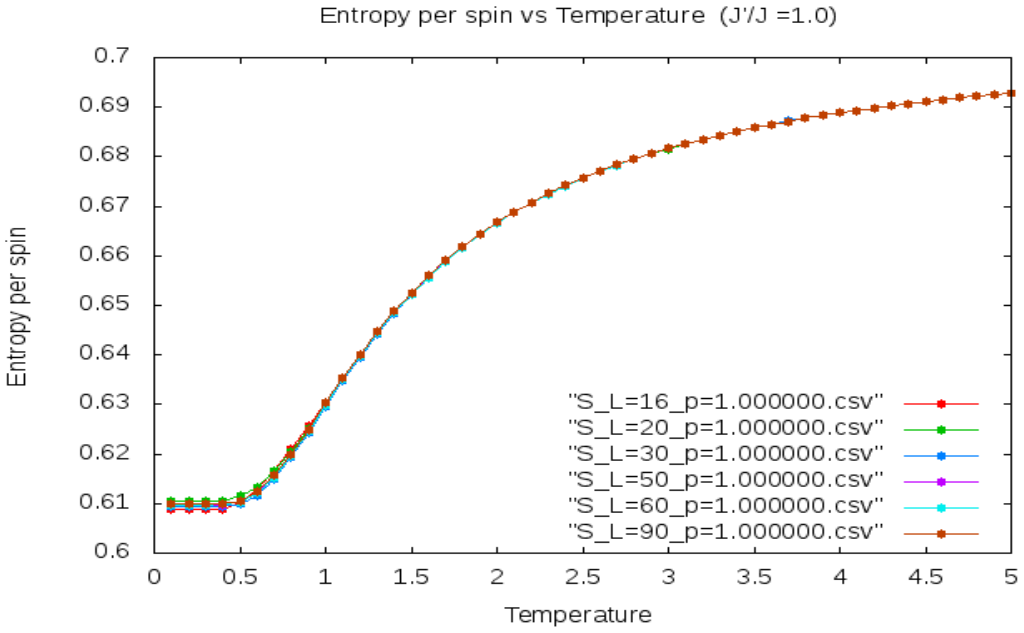
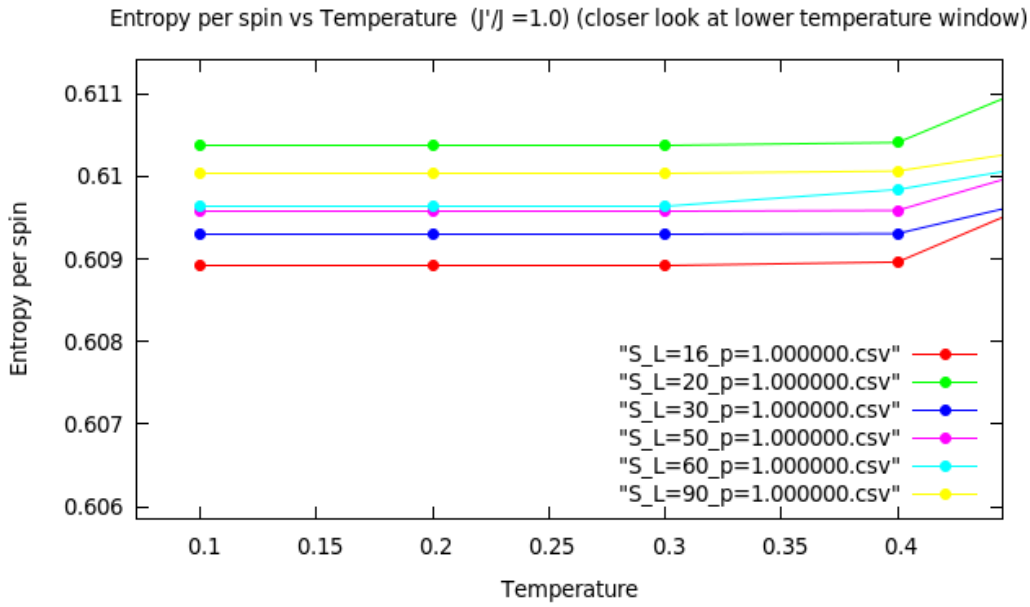
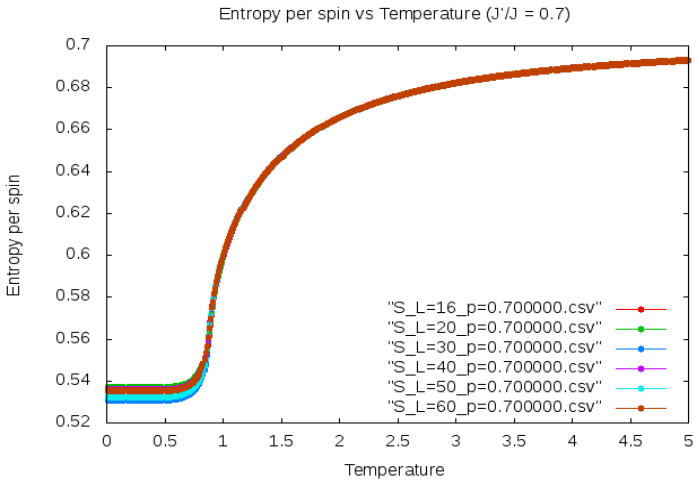
Triangular Limit Entropy.

Unlike square manifold, where the entropy for lower temperatures seem to assymptotically go to a value ~ 0.5, the triangular manifold goes to ~0.6. Here too, we find a parallel shift in the curves for different values of lattice size (the function being entropy per spin, this wasn't really expected)



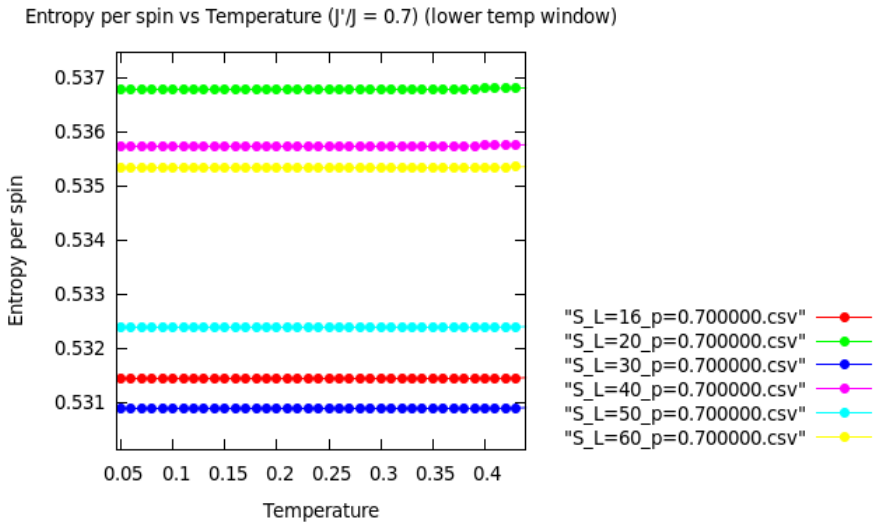


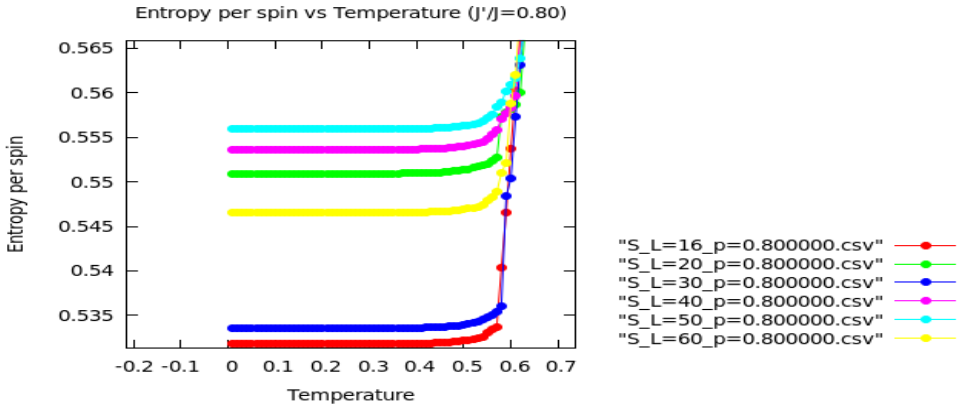
For intermediate J'/J

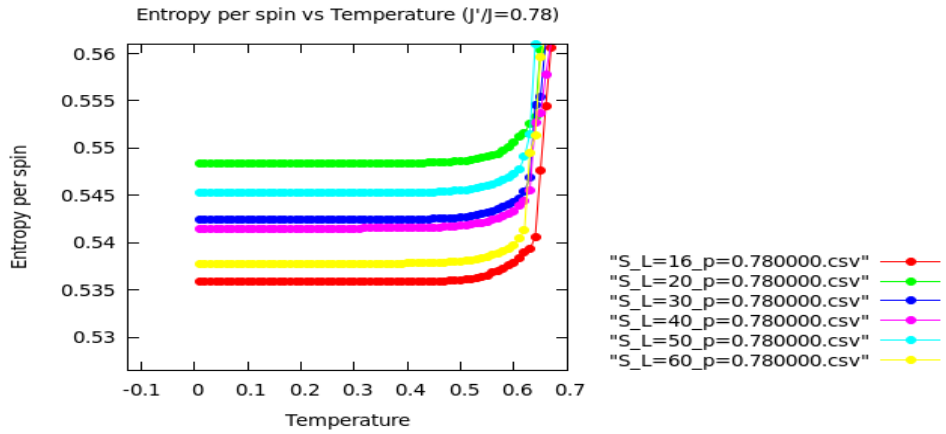


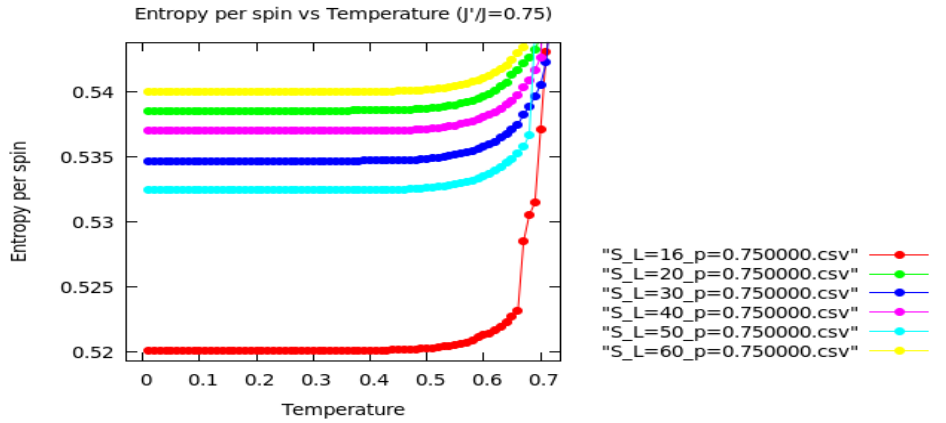
Here I have taken values at temperature steps of 0.01, instead of 0.1.

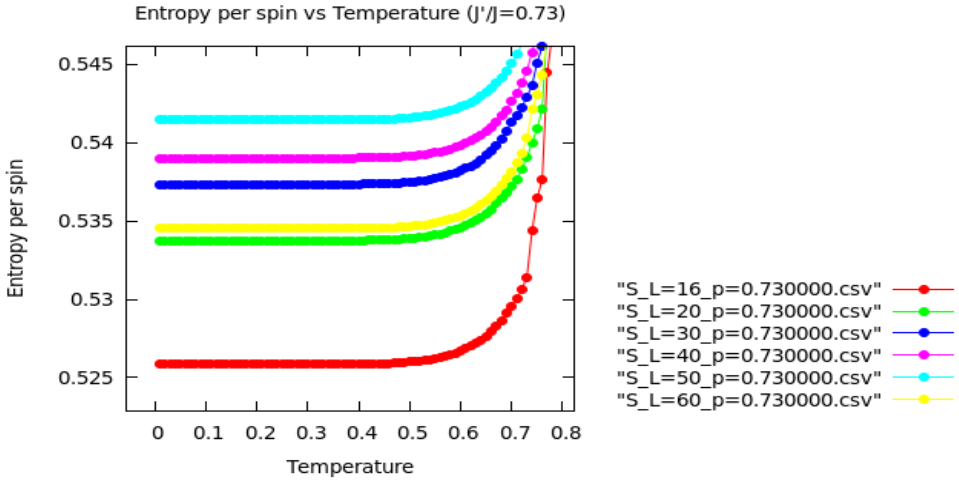
For many of these values of J'/J (here J'/J = 0.7), I happen to see a similar pattern, near the lower temperature window. For the smallest lattice size (here L=16), the entropy is something, for next larger lattice size (here L=20), it is very large as compared to the previous one, for the next (here L=30), it is smaller than the previous one(L=20), for yet next (L=40), it is greater than the previous one (L=30), and so on. Below are some similar curves for lower temperature window, but for different J'/J values. This could be a coincidence, since for some values of J'/J (like 0.73), this is not followed and for yet others, it is not followed only for some L values.




Entropy per spin vs Temperature (J'/J=0.80)
Entropy per spin
Temperature
0.565
0.56
0.555
0.55
0.545
0.54
0.535
-0.2 -0.1 0 0.1 0.2 0.3 0.4 0.5 0.6 0.7
"S_L=16_p=0.800000.csv"
"S_L=20_p=0.800000.csv"
"S_L=30_p=0.800000.csv"
"S_L=40_p=0.800000.csv"
"S_L=50_p=0.800000.csv"
"S_L=60_p=0.800000.csv"


Entropy per spin vs Temperature (J'/J=0.78)
Entropy per spin
Temperature
0.56
0.555
0.55
0.545
0.54
0.535
0.53
-0.1 0 0.1 0.2 0.3 0.4 0.5 0.6 0.7
"S_L=16_p=0.780000.csv"
"S_L=20_p=0.780000.csv"
"S_L=30_p=0.780000.csv"
"S_L=40_p=0.780000.csv"
"S_L=50_p=0.780000.csv"
"S_L=60_p=0.780000.csv"


Entropy per spin vs Temperature (J'/J=0.75)
Entropy per spin
Temperature
0.54
0.535
0.53
0.525
0.52
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7
"S_L=16_p=0.750000.csv"
"S_L=20_p=0.750000.csv"
"S_L=30_p=0.750000.csv"
"S_L=40_p=0.750000.csv"
"S_L=50_p=0.750000.csv"
"S_L=60_p=0.750000.csv"


Entropy per spin vs Temperature (J'/J=0.73)
Entropy per spin
Temperature
0.545
0.54
0.535
0.53
0.525
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8
"S_L=16_p=0.730000.csv"
"S_L=20_p=0.730000.csv"
"S_L=30_p=0.730000.csv"
"S_L=40_p=0.730000.csv"
"S_L=50_p=0.730000.csv"
"S_L=60_p=0.730000.csv"