

# ONE- AND TWO-DIMENSIONAL ISING MODEL

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## A. RESULTS

**Table 1:** Results of the 1D simulation for  $N = 10$ ,  $N_{samples} = 10000$ .

$T$	$\beta$	Numerical		Analytical		accuracy
		$U/N \times 10^{-3}$	$C/N \times 10^{-3}$	$U/N \times 10^{-3}$	$C/N \times 10^{-3}$	
0.2	5.000	-900.0	0.	-999.9	4.540	
0.4	2.500	-870.8	366.0	-986.6	166.2	0.661
0.6	1.667	-825.8	394.6	-931.1	369.5	0.904
0.8	1.250	-770.8	392.5	-848.3	438.2	0.892
1.0	1.000	-662.9	396.1	-761.6	420.0	0.895
1.2	0.833	-624.3	321.3	-682.3	371.2	0.876
1.4	0.714	-567.8	293.8	-613.4	318.3	0.918
1.6	0.625	-495.8	236.0	-554.6	270.5	0.868
1.8	0.556	-440.7	201.3	-504.7	230.0	0.856
2.0	0.500	-428.1	169.1	-462.1	196.6	0.879
2.2	0.455	-376.7	143.4	-425.6	169.2	0.845
2.4	0.417	-361.2	136.3	-394.1	146.6	0.917
2.6	0.385	-323.9	108.3	-366.7	128.0	0.843
2.8	0.357	-314.3	97.13	-342.7	112.6	0.875
3.0	0.333	-296.0	87.07	-321.5	99.63	0.885
3.2	0.313	-278.0	76.68	-302.7	88.71	0.877
3.4	0.294	-252.8	74.05	-285.9	79.43	0.898
3.6	0.278	-258.2	65.52	-270.9	71.50	0.930
3.8	0.263	-227.5	59.35	-257.3	64.67	0.890
4.0	0.250	-215.8	53.41	-244.9	58.75	0.882