Homework 6

Logan Xu

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1 Problem 1

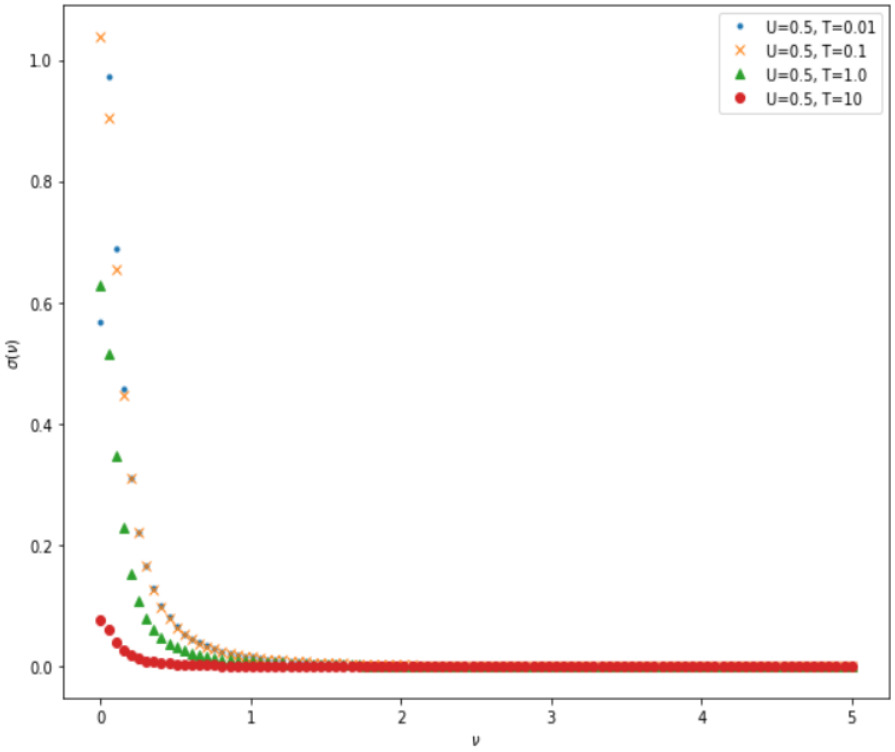


Figure 1: $U = 0.5$

In general, the isothermal conductivity decreases as the value of U increases. And each conductivity at a certain U and T decreases with ν. However at $U = 2.0$, the low temperature where $T < 1$ develops exotic characteristics as the conductivity increases with ν.

2 Problem 2

The plot of $-KE$ agrees with the other one at lower T values, as both of them are constant in the beginning. However the integral values drop at T values that are much smaller than the other one.

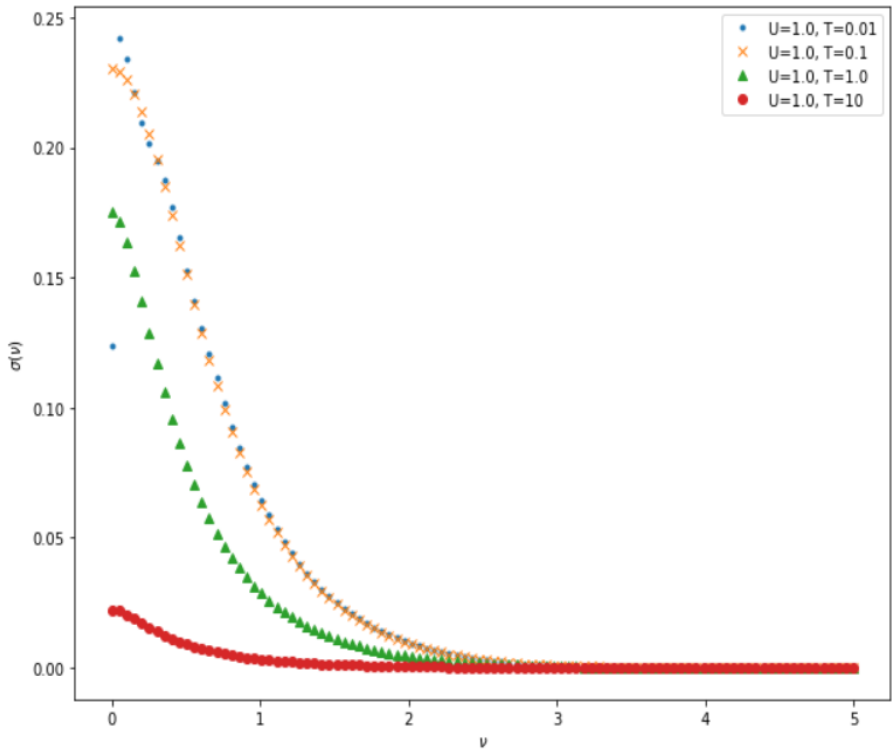


Figure 2: $U = 1.0$

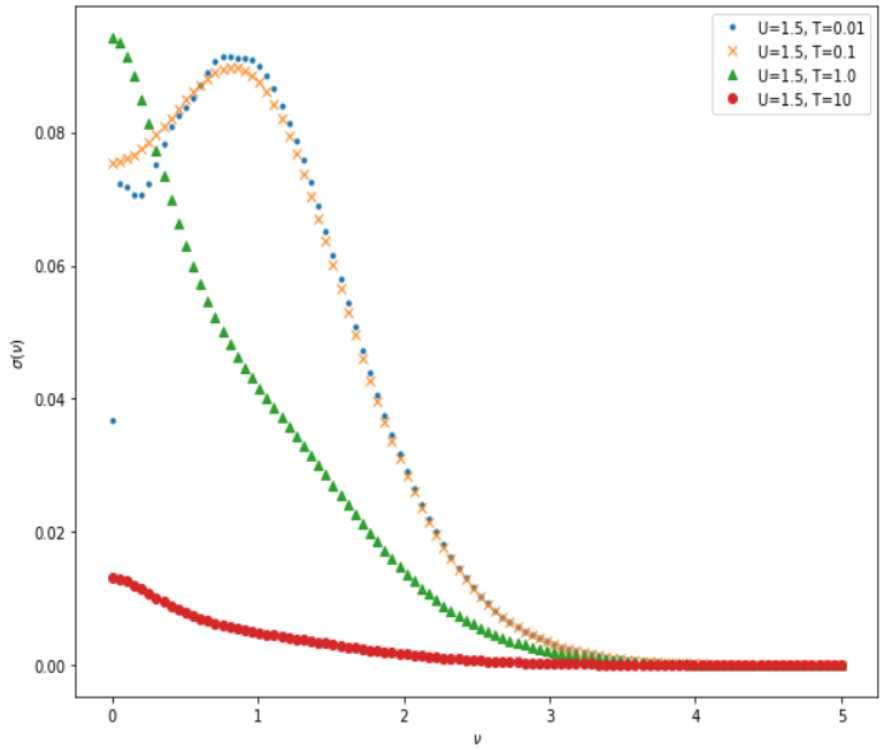


Figure 3: $U = 1.5$

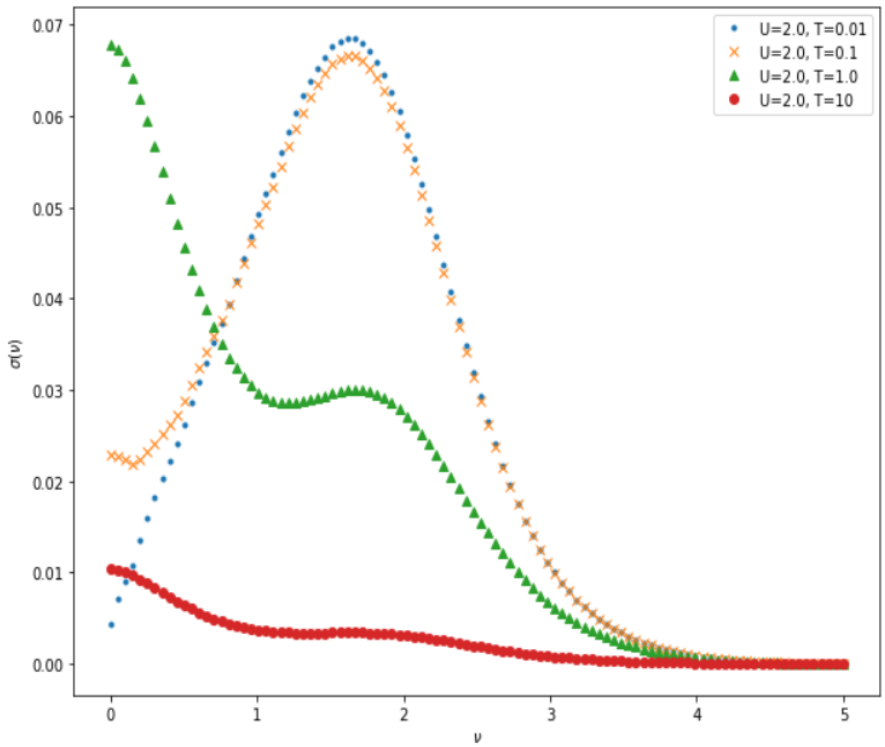
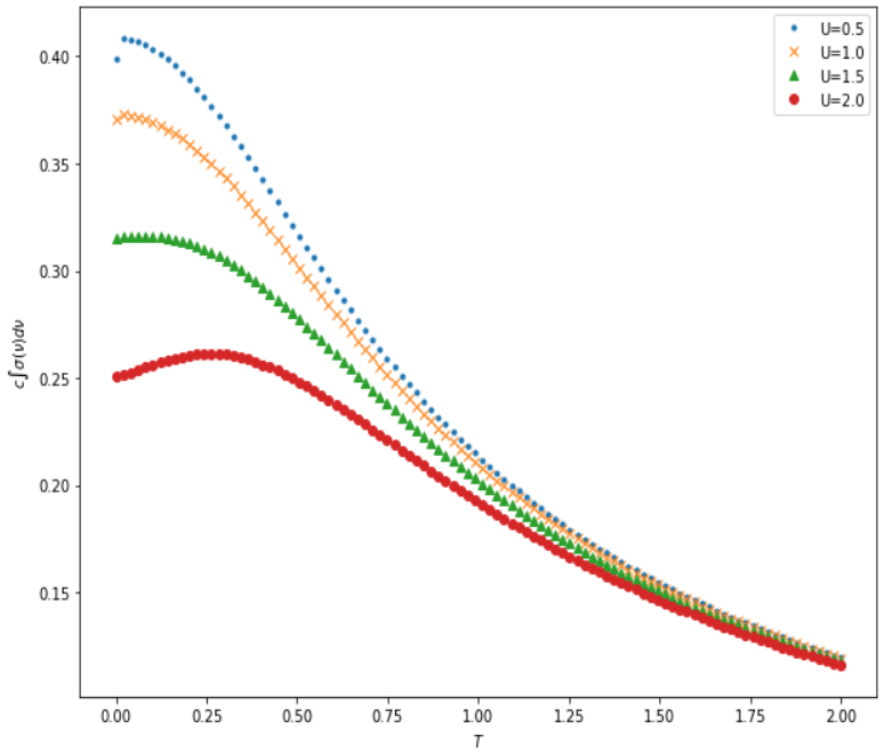
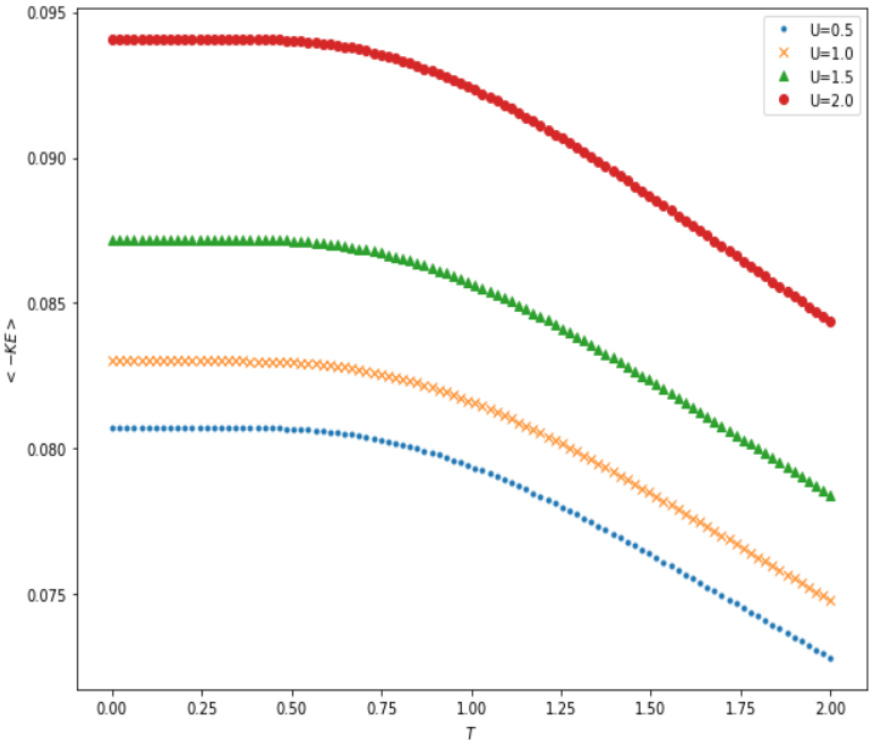


Figure 4: $U = 2.0$

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2.00
T
U=0.5
U=1.0
U=1.5
U=2.0