**AC analysis of the cantilever**

The time steps taken in my previous simulations were not small enough. Hence, the COMSOL could not take enough points to draw the sinusoidal signal.

To solve that problem, I chose smaller time step. Firstly, I only computed with keeping only “Electric Current” module on but keeping rest of the modules off (namely, “heat transfer” and “solid mechanics”).

 For a frequency of 100 Hertz, time steps of 0.1 millisecond (100 microsecond) and simulation time of 0.1 second, the input signal is perfectly sinusoidal. (Figure 1)



***Figure 1***

Then, I tried to run the complete simulations with keeping all the modules on (ec, ht, sm). However, this time the input signal is no longer sinusoidal. (Figure 2: green for ω, blue for ω/2).



***Figure 2***

Now, I do not know how to tackle this problem. I hope, you can give me some valuable suggestions.