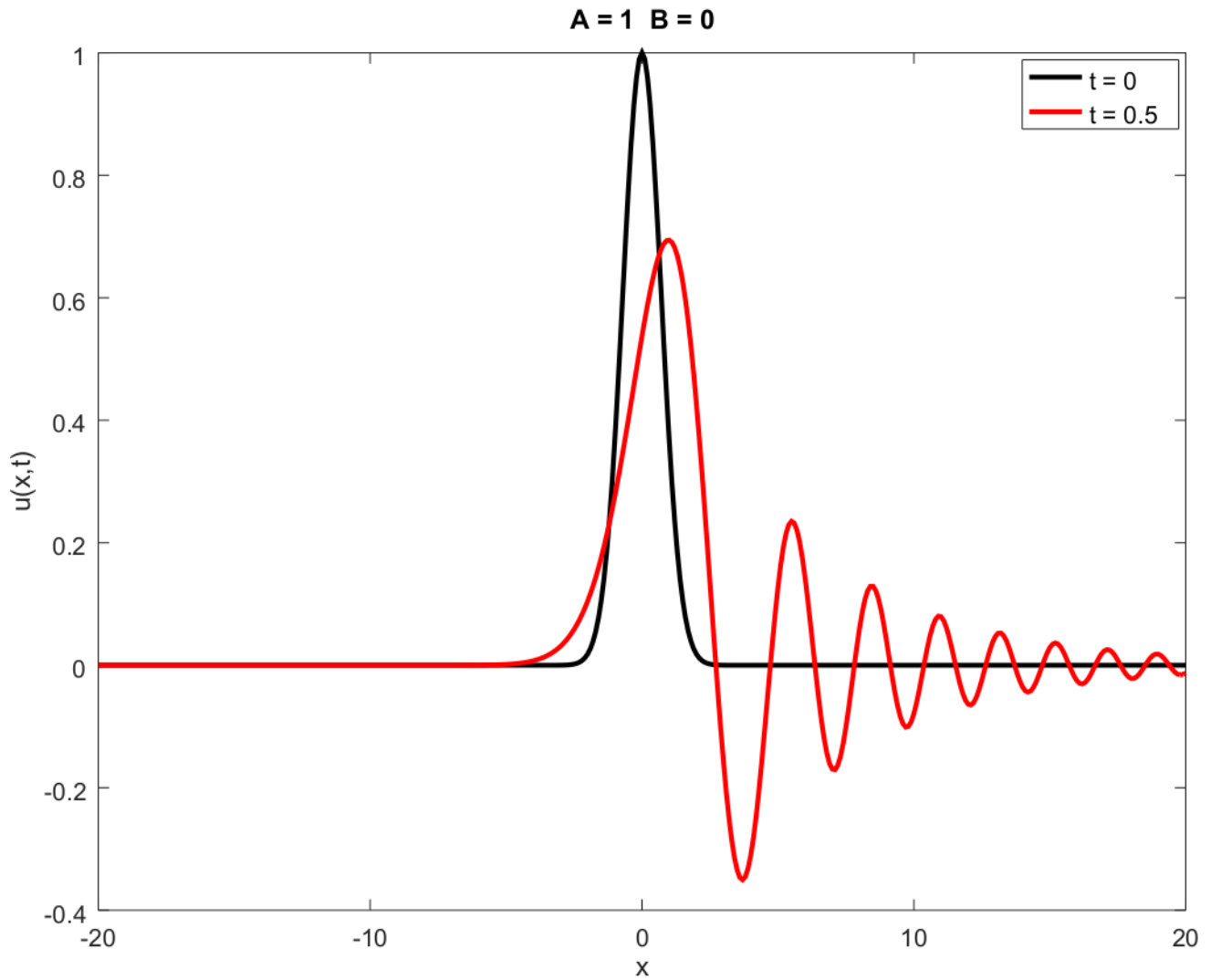


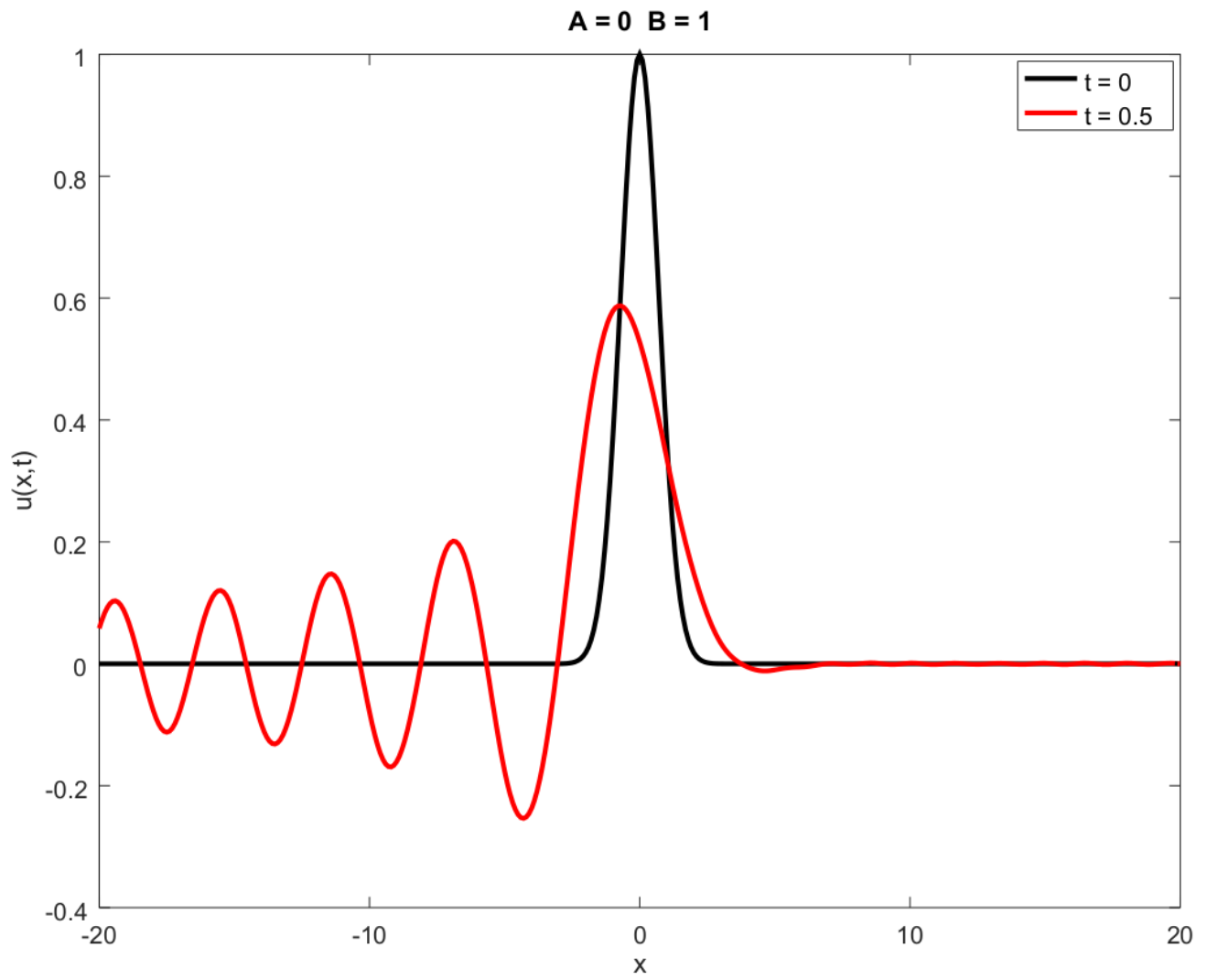
Prob 1

$$u(x, t) = \frac{1}{\sqrt{\pi}} \int_0^{\infty} e^{-\omega^2/4} \cos(\omega x - A\omega^3 t + B\omega^5 t) d\omega .$$

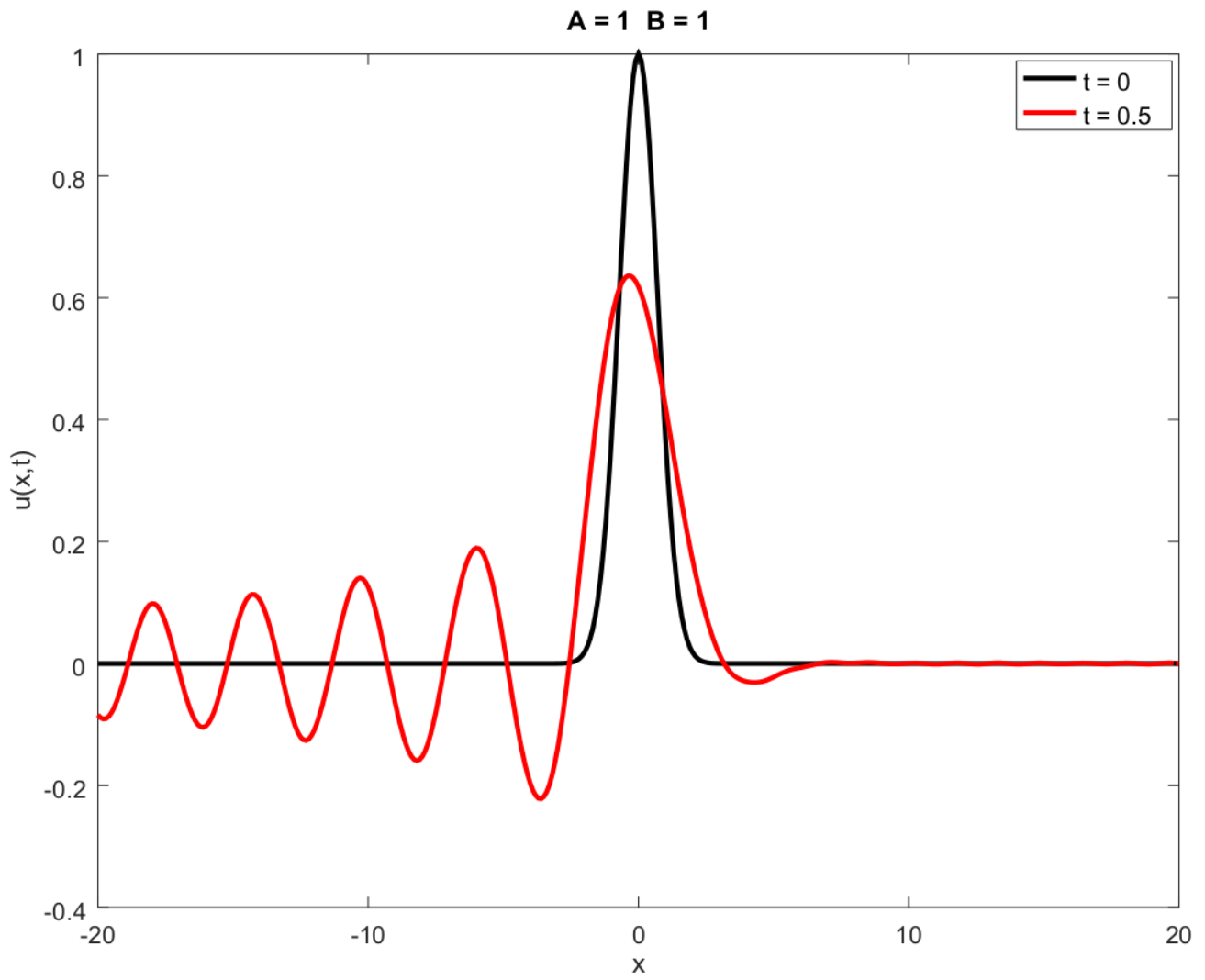
Plots:



(plots for Prob 1, continued)



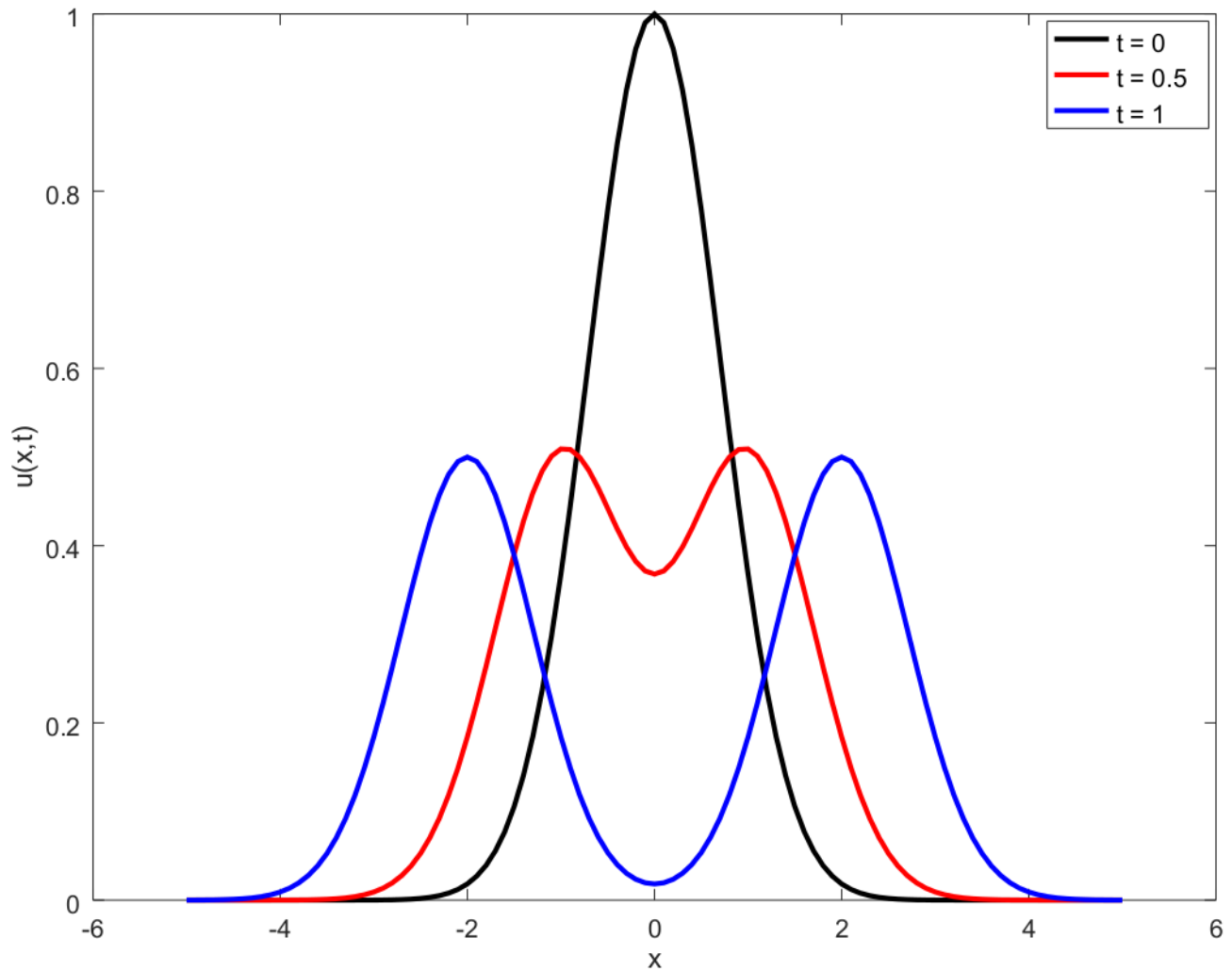
(plots for Prob 1, continued)



Prob 2

$$u(x, t) = \frac{1}{2} [e^{-(x+2t)^2} + e^{-(x-2t)^2}] .$$

Plot:



Prob 3

$$u(x, t) = \frac{1}{\sqrt{4t+1}} e^{-\frac{x^2}{4t+1} - t}$$

Prob 4

$$G(t, t') = \frac{(t+2)^{t+2}}{(t'+2)^{t'+2}} e^{t'-t}$$