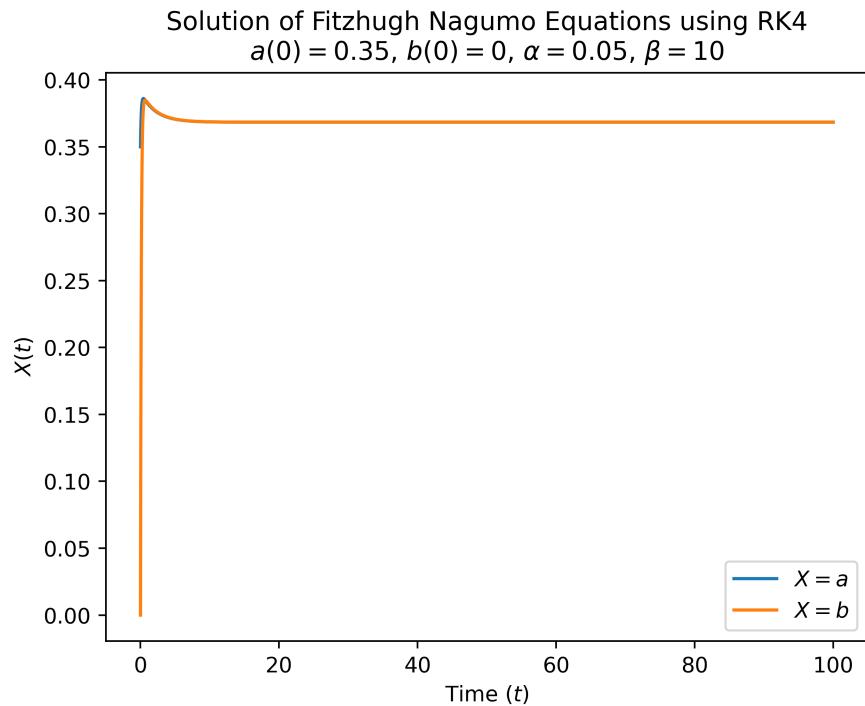


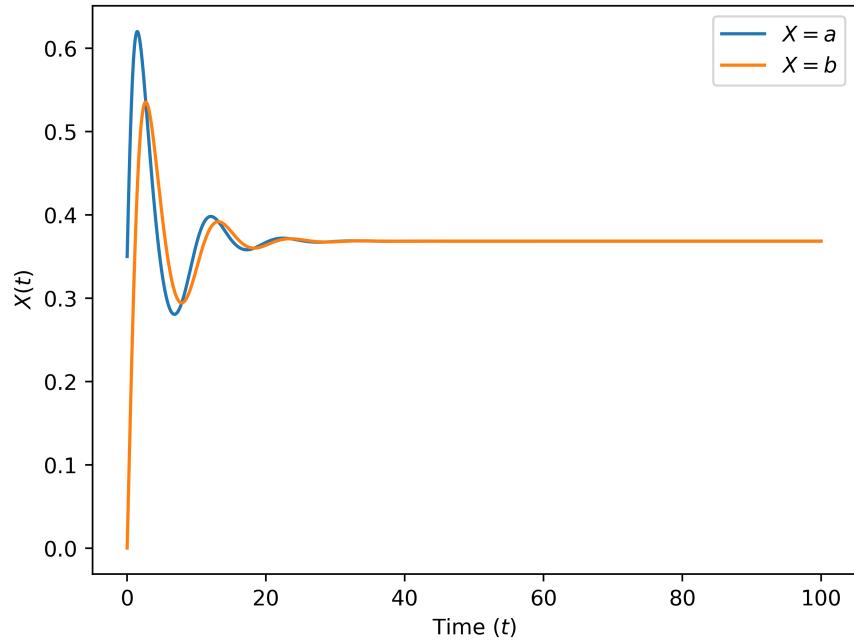
Assignment 6

Vignesh M Pai (20211132)

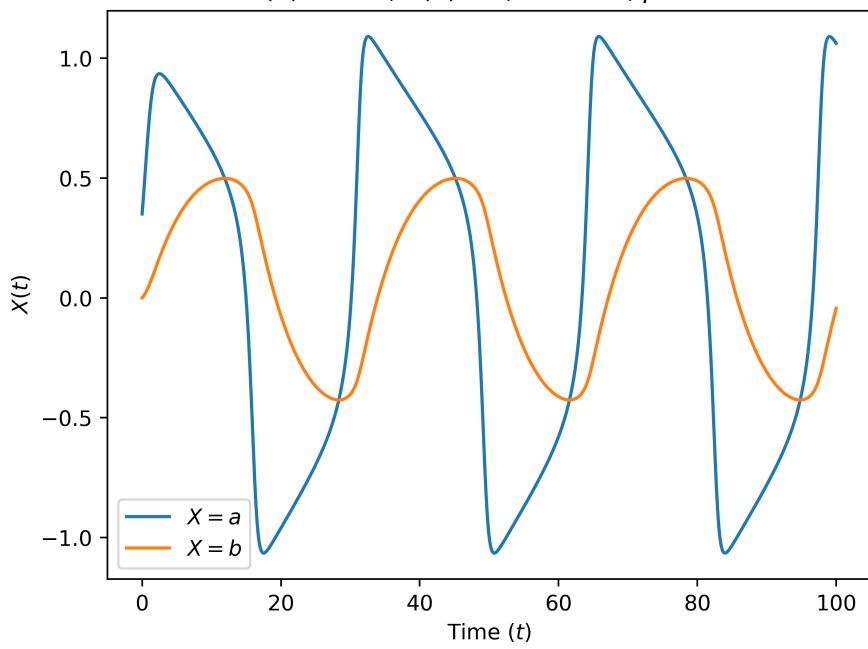
Fitzhugh Nagumo Equations



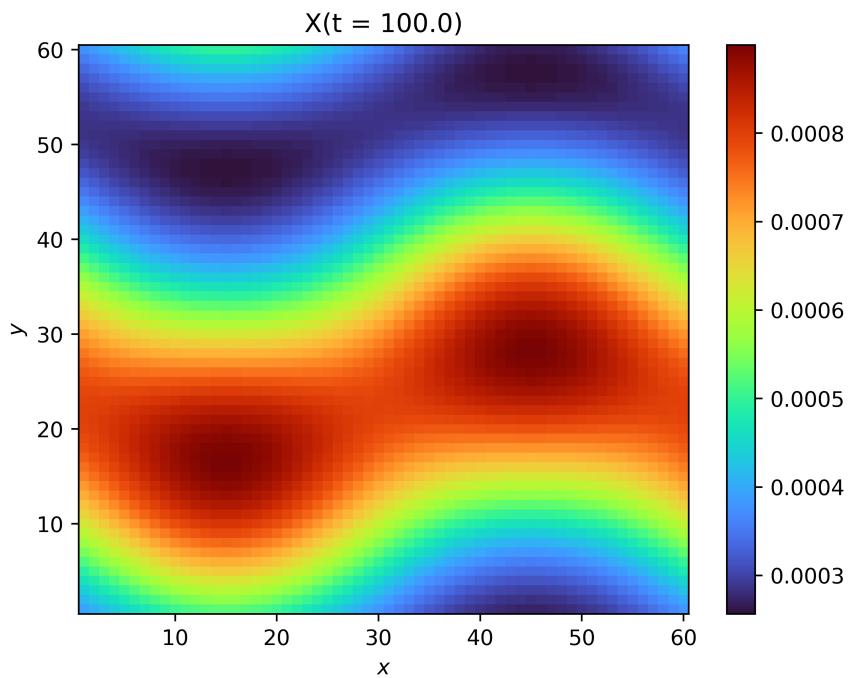
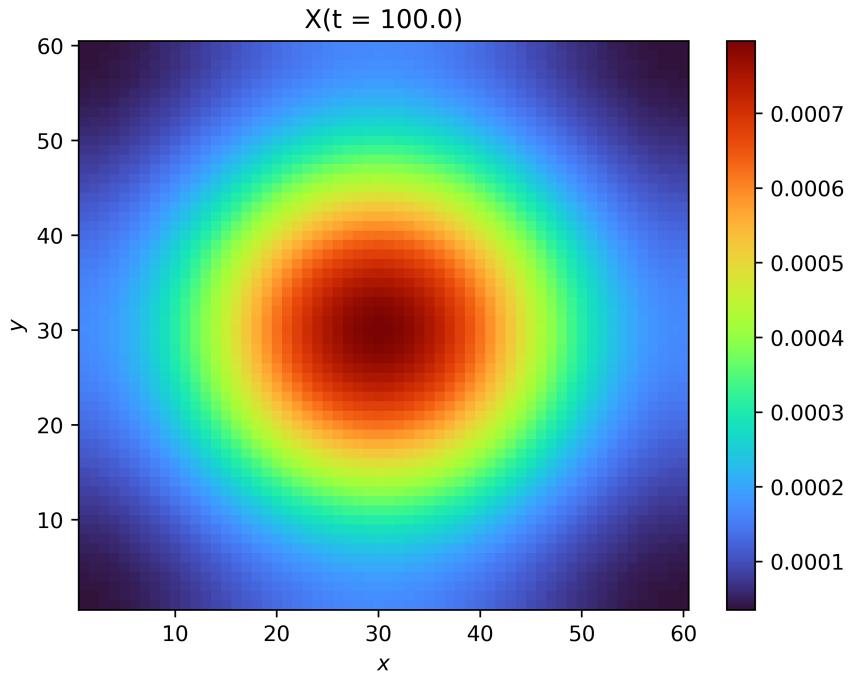
Solution of Fitzhugh Nagumo Equations using RK4
 $a(0) = 0.35, b(0) = 0, \alpha = 0.05, \beta = 1$



Solution of Fitzhugh Nagumo Equations using RK4
 $a(0) = 0.35, b(0) = 0, \alpha = 0.05, \beta = 0.1$

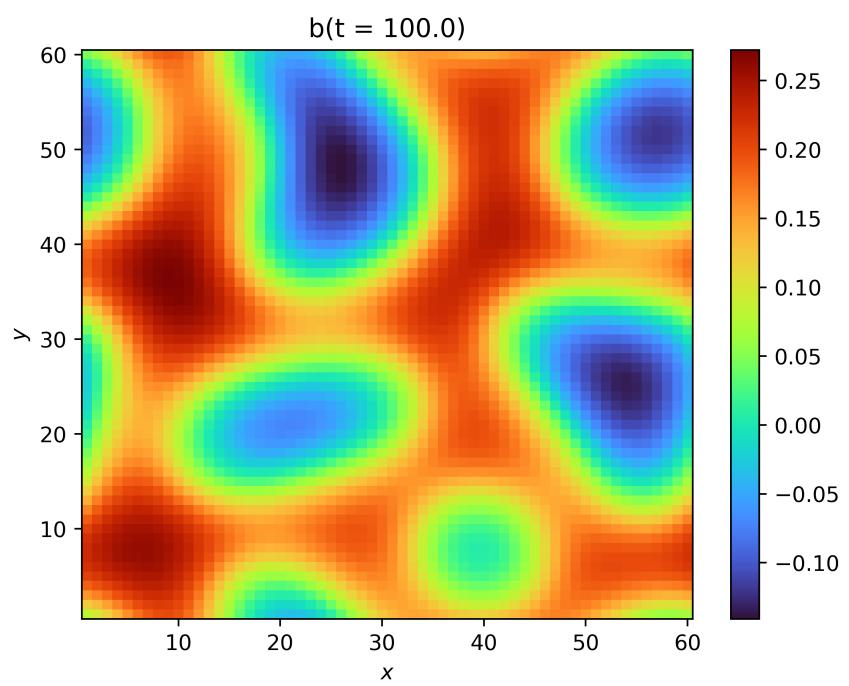
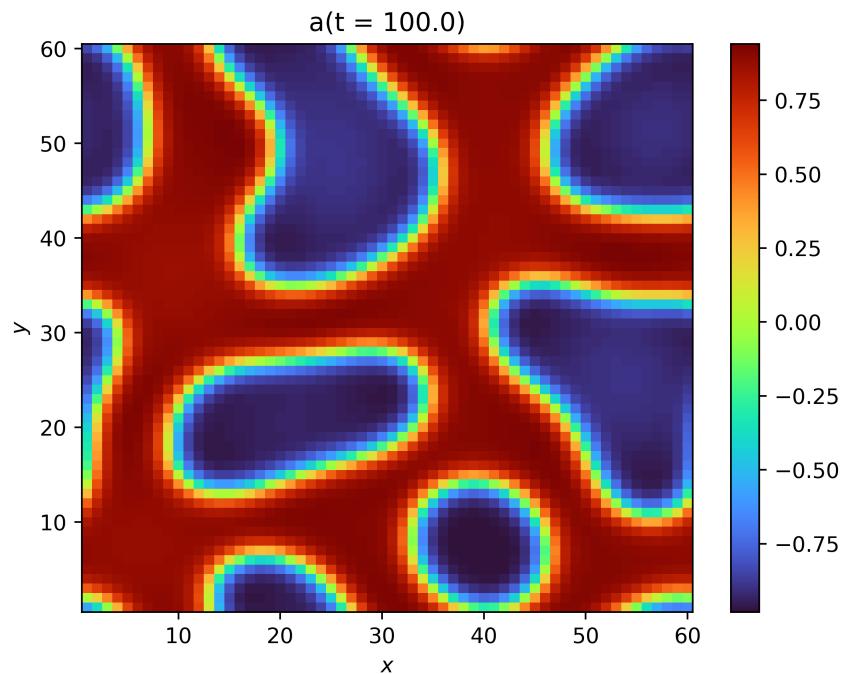


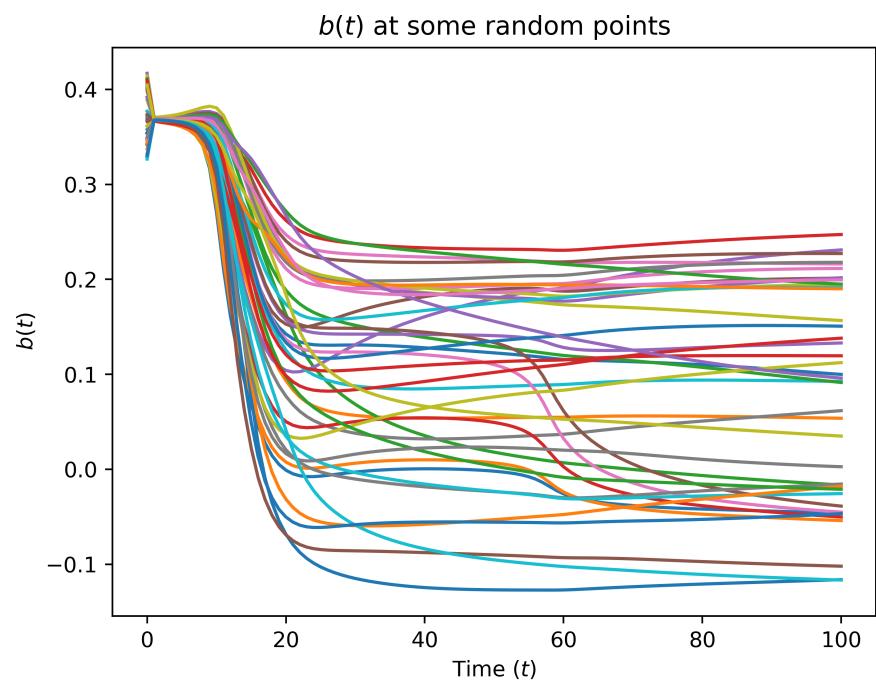
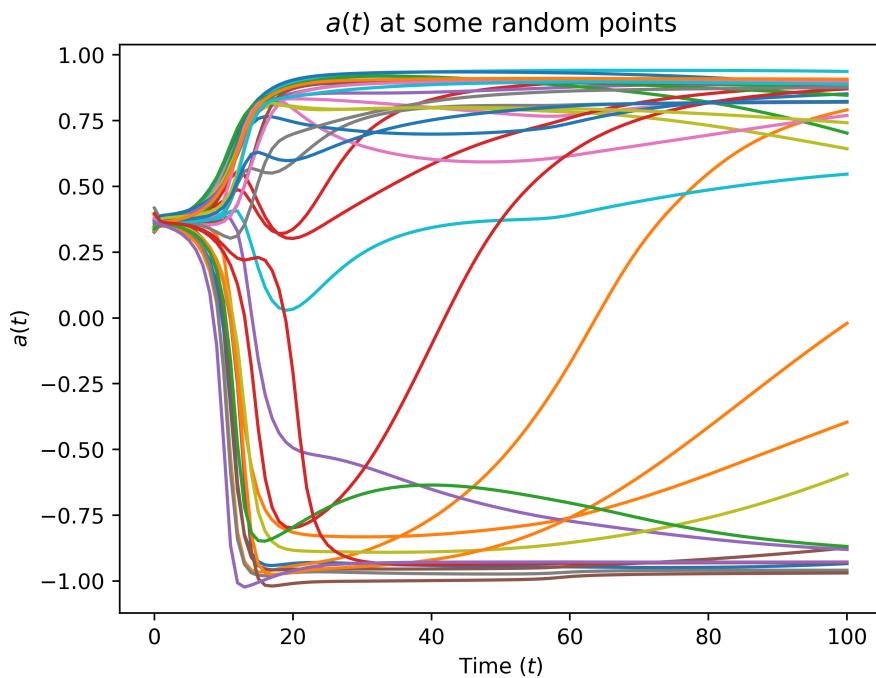
Diffusion Equation



Turing Patterns 1

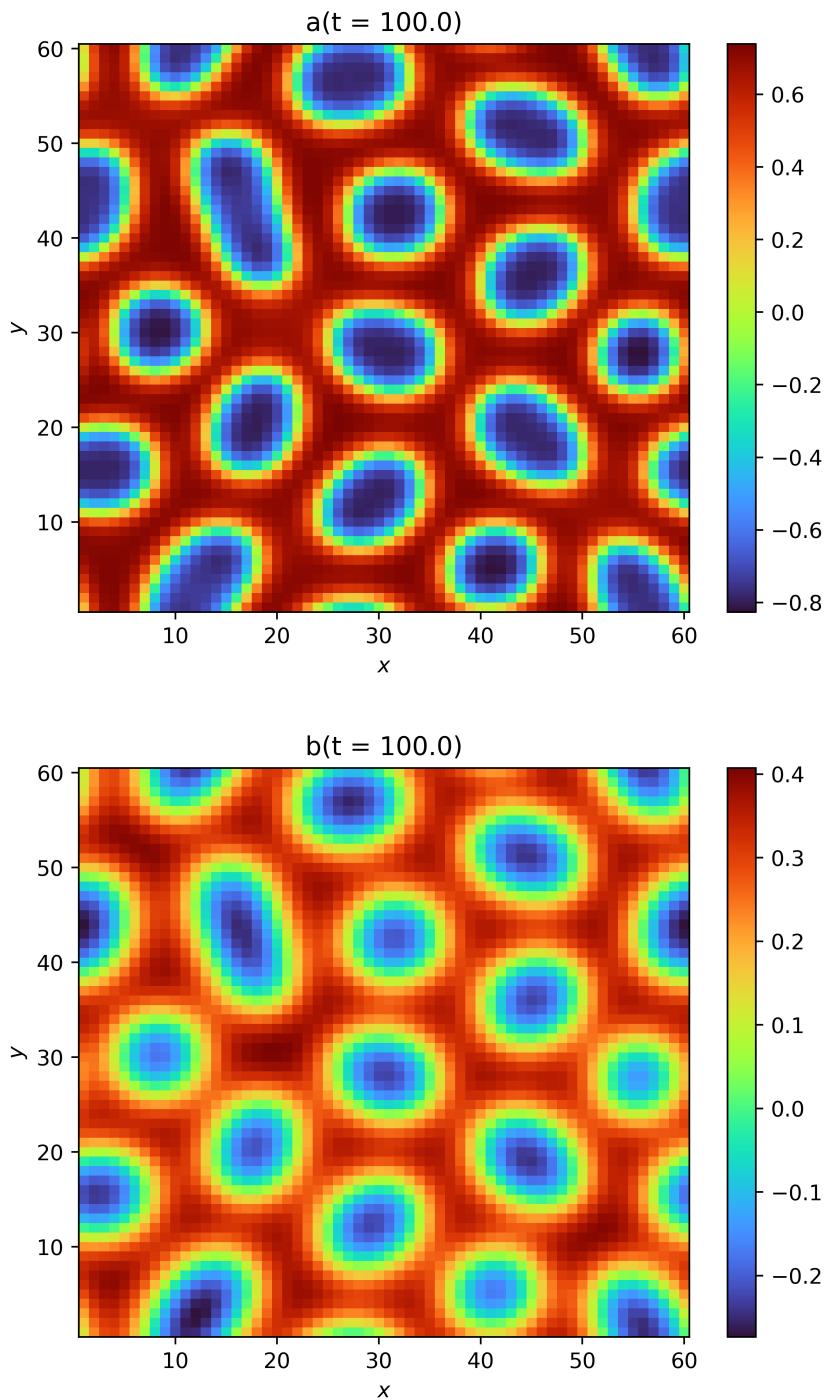
Parameters used are $\alpha = 0.05$, $\beta = 1$, $D_a = 1$, $D_b = 100$, $dt = 0.001$. Random initial conditions are used.

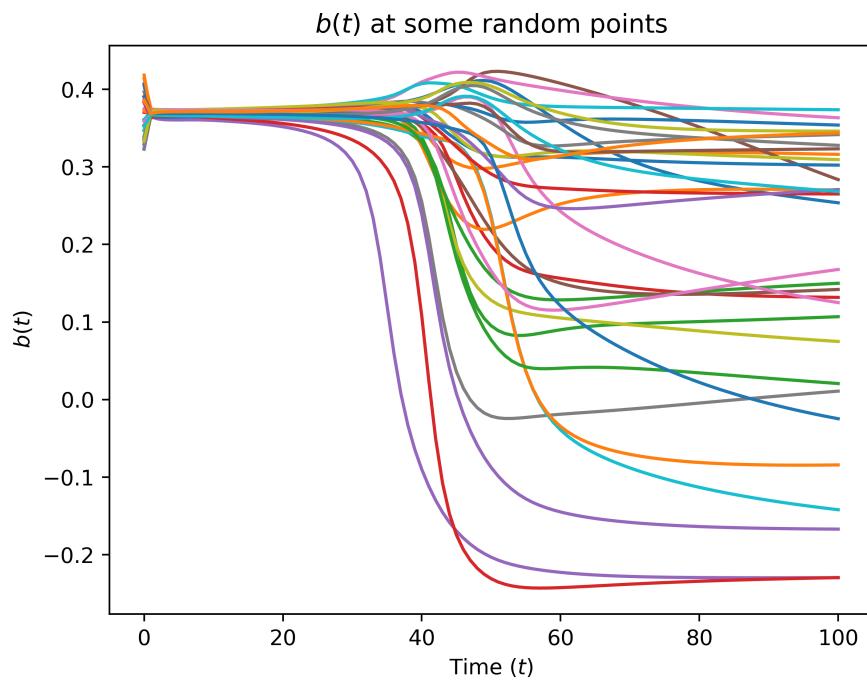
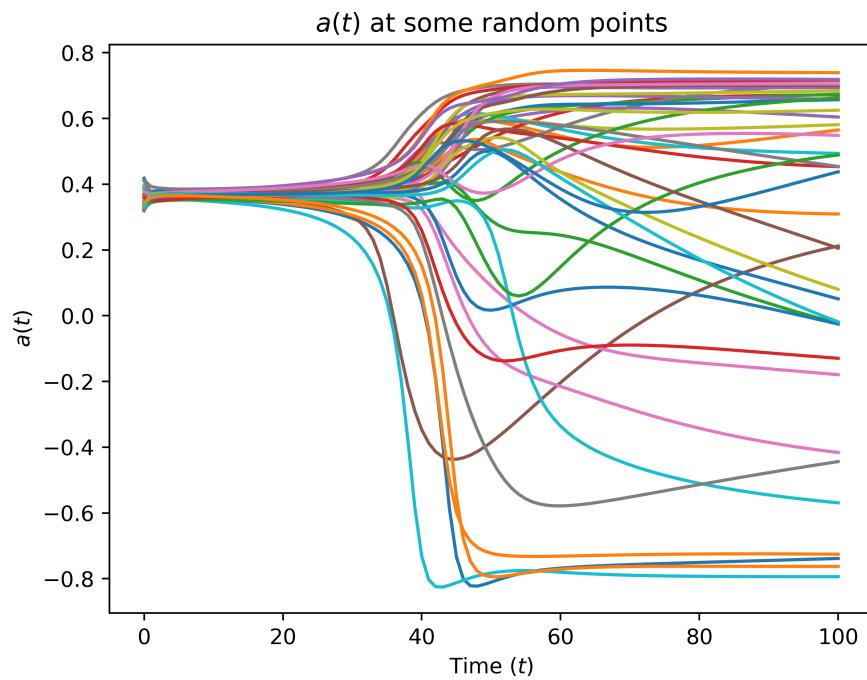




Turing Patterns 2

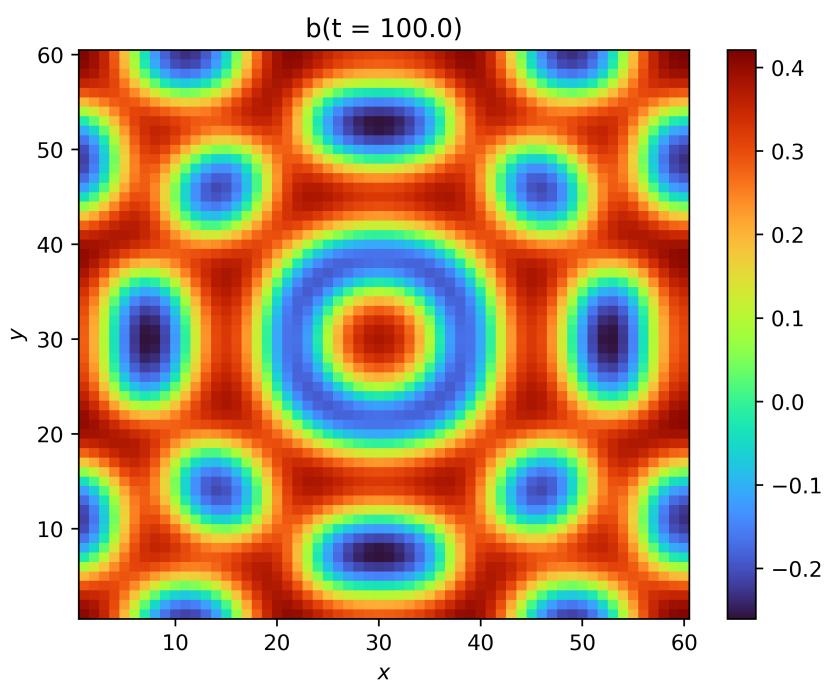
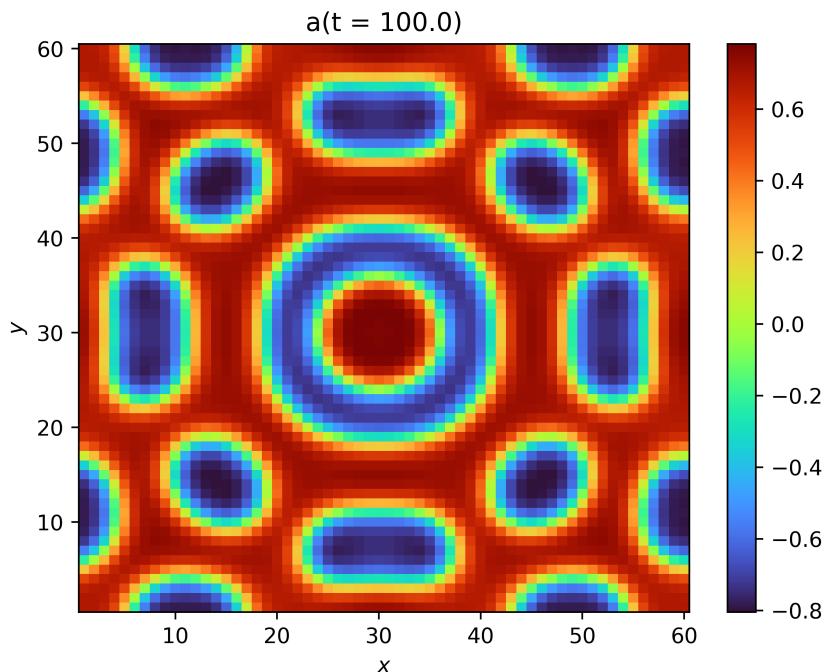
Parameters changed are $D_b = 10$.



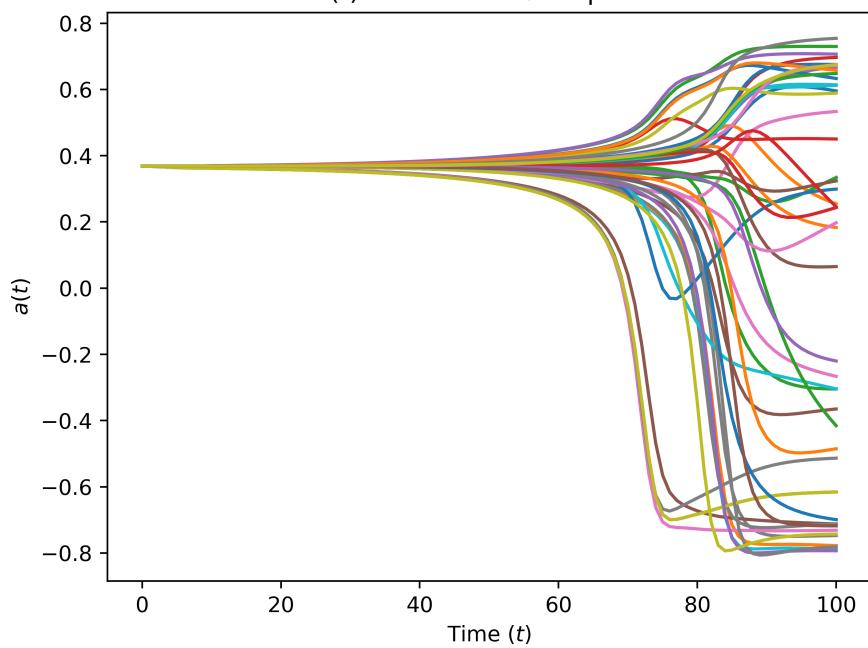


Turing Patterns 3

Parameters changed are $D_b = 10$ and the intial conditions.



$a(t)$ at some random points



$b(t)$ at some random points

