

AE-625

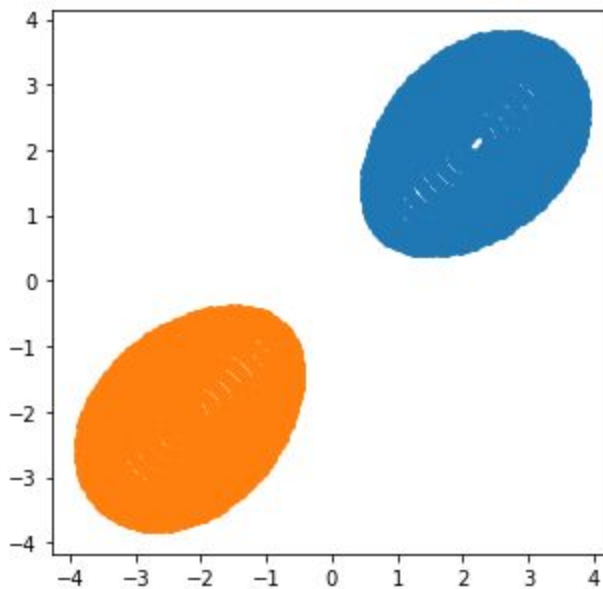
Assignment-3

Case1:

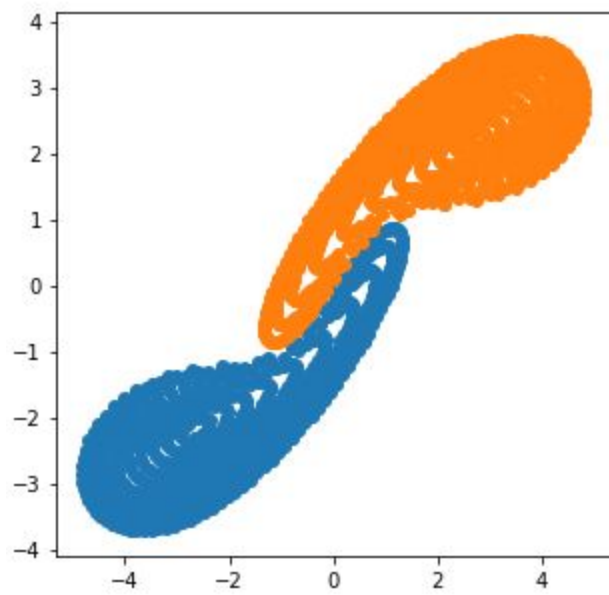
For merging two circular region:

$dt=0.001$, distance between the center of two circles=6, $d=0.1$, $j=10$, $m=10$,
total running time = 1 sec, steps=1000, $\delta=4*d$

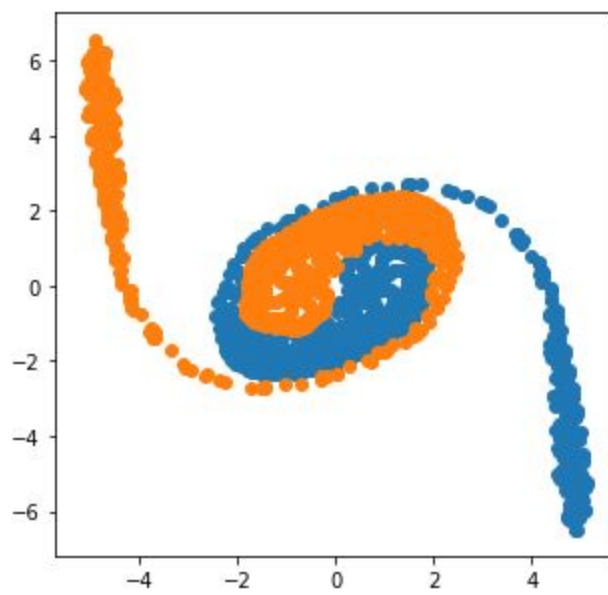
After steps: 400



After steps=700



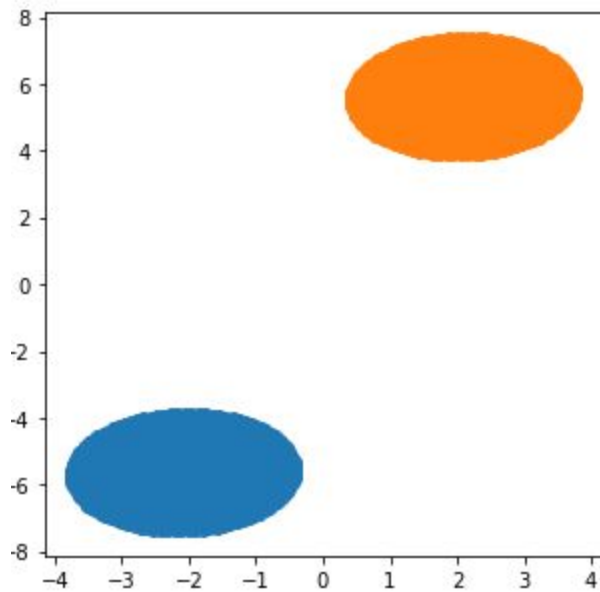
After steps:900



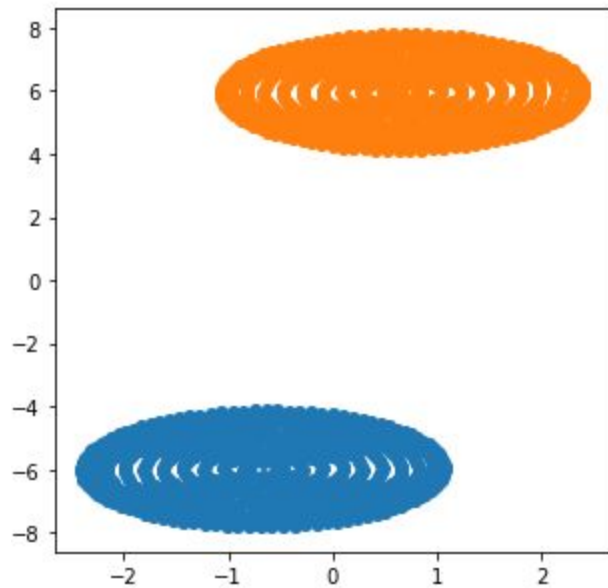
Case2: Behave as two point vortex:

$dt=0.001$, distance between the center of two circles=12, $d=0.1$, $j=10$, $m=10$,
total running time = 1 sec, steps=1000, $\delta=4*d$

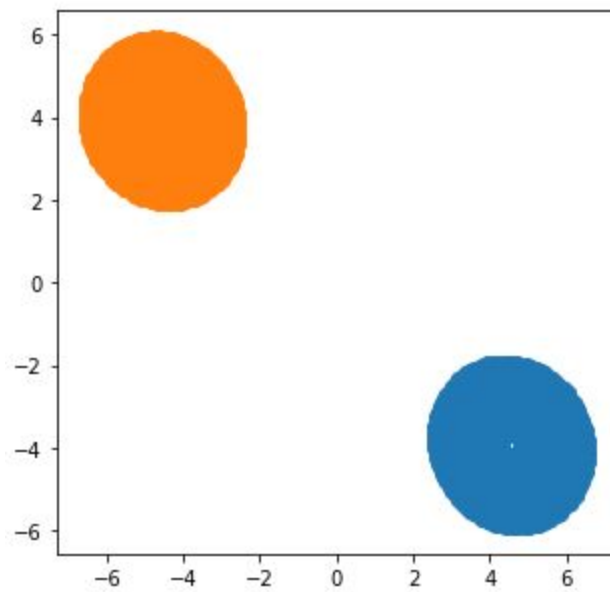
After steps:500



Time step:600



After steps:1000



As we can see they are moving in a circular motion about the origin and not merging or exchanging any vortex.