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## CMP 756 Swarm Systems Homework 2

Ready-to-run simulation code is "CMP756\_AhmetBurakKOC\_HW2.m"

Q1,Q2,Q3 and Q4 are answered within displays and comments. Validation are done both by,

- Equating variance to 0, which means there is no variation in data with time.
- and by simulation.

Q5 is plotted on figure 2("states vs time")

**Q6** is commented

**Q7** figures are given below.

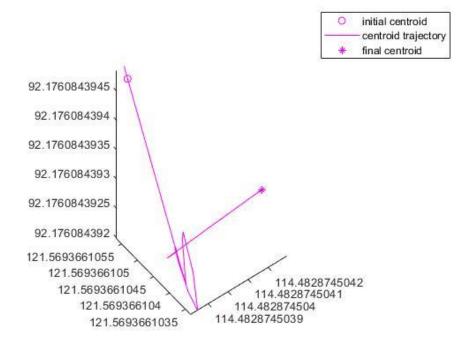


Figure 1: centroid vs time

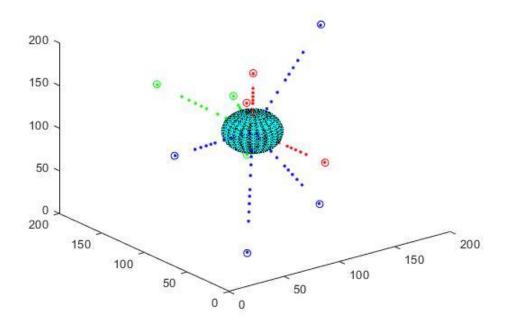


Figure 2: states vs time

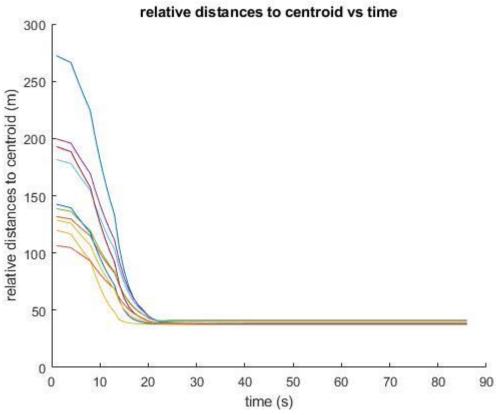


Figure 3: relative distances to centroid vs time