

CSCI-4290/6290: Robot Motion Planning  
Lecture 20: November 8, 2005  
**Multiple Robot Coordination**

## Announcements

- Assignment 5 is due today.
- Please submit your (revised) course project proposal on Friday, November 11.

## Today's Class

We will begin our discussion of *motion planning for multiple moving objects* by first considering motion planning for a robot among moving obstacles with known velocities. This is similar to an asteroid avoidance task for a spaceship.

1. Configuration-time space
2. Approximate cell decomposition approach
3. Velocity tuning approach

We will then consider *motion planning for multiple robots*.

1. Centralized planning and the composite configuration space
2. Prioritized planning

## Reading

Chapters 7–7.2, LaValle.

Chapter 8 through 8.2, Latombe. (optional)

Chapter 7.5.2, Choset et al.

## Next Class

Multiple robot coordination (continued).