

CSCI-4965/6963: Robot Motion Planning
Lecture 13: October 11, 2001
Probabilistic Roadmaps

Announcements

- Assignment 3 is due today at the beginning of class.
- The midterm exam is on Monday, October 15 in class from 2:00pm to 3:50pm. It will be a closed book and closed notes exam. Where appropriate, formulae will be provided.
- For graduate students taking CSCI-6963: A preliminary list of papers that can be selected for class presentation is available on the course web page. Please send me email indicating your top three choices of (sets of) papers.

Today's Class

Today we continue our discussion of the basic *probabilistic roadmap* technique.

1. Assignment review
2. Probabilistic roadmaps (PRMs)
3. Learning (or preprocessing) phase: construction step, expansion step
4. Query phase

Reading

L. E. Kavraki, P. Švestka, J.-C. Latombe, and M. H. Overmars, "Probabilistic Roadmaps for Path Planning in High-Dimensional Configuration Spaces", *IEEE Transactions on Robotics and Automation*, Vol. 12, No. 4, pages 566–580, August 1996.

Next Class

Midterm exam!