Spring 2020

Stanford
AA203: Optimal and Learning-based Control

Final project guidelines

Project Description: Your project should be related to the range of topics covered in this class. In your project, you should apply tools from optimal and learning-based control to a problem that interests you, try to benchmark/improve an existing algorithm, or even develop a new one! Of course, if you are already working on a research project that optimal and learning-based control might be applicable to, then working out how to apply the tools covered in this class to it will likely make a very good project topic.

The project entails writing a project proposal (1 page), project report (4 pages) and preparing a video presentation. You can work in a group of up to three people.

Timeline: We encourage all of you to discuss with Prof. Pavone and the CAs the selection of the topic of your project. Specifically, this is the timeline for the final project:

- **Project discussion phase**: discuss with Prof. Pavone and the CAs your project ideas during office hours, until Friday, May 1st.
- **Project proposal**: by Friday, May 1st, submit a one page project proposal on Gradescope. The following information must be included: title, names of the team members, clear description of the problem that you wish to study, and relation of your project to your current research (if any).
- **Project approval**: on Friday, May 8th we will inform you if your project idea is approved or if (and how) you should modify it.
- **Video presentation**: instead of a poster presentation, we will have video presentations this year. You should prepare a three minute video about your project for Wednesday, June 10. These videos will be made available to all students in the class.
- **Project report**: you should submit your project report (4 pages maximum) by Friday, June 12 on Gradescope.

Project evaluation: Your project will be evaluated along three main dimensions:

- Technical quality and clarity of your proposal (20%).
- Technical quality of your final project submission (50%).
- Clarity of your video presentation and final report (30%).

Publishing your work: Some of the research-oriented projects might contain publishable work. Prof. Pavone and the CAs will be happy to help you with turning your work into a scientific publication.