

### CS237B Paper Review Report

Students enrolled in this class for 4 units are required to submit a paper review report on a selected paper from the list below. This assignment will test your understanding and critical analysis of a research paper.

**Your task:** Peer review is an important part of science and engineering. Understanding the review process will also make you a better writer. The task of the referee is outlined in this [article](#) by Alan Jay Smith. Although you will not be making recommendations for or against publication, use the questions listed in Section 4 of Smith's article to guide the review writing process.

**Guidelines:** A good review should be one-page long and include several parts. In your review, address the following points:

- Summarize the main point(s) of the paper in 1-5 sentences. Use your own words.
- List what you have learned from the paper.
- List any point of agreement or praise.
- List any point of disagreement or criticism.
- Evaluate the goal of the paper both in validity and significance
- Evaluate the quality of the work (methodology, techniques, accuracy, assumptions)
- Prepare two questions that you have about the paper. This can be about something technical that remained unclear, about practical implications, or about connections to previous papers we discussed.

**Submission:** Submit your paper review report in **PDF format** on Gradescope no later than 11:59pm on Friday, March 14th. You may optionally use this Latex [template](#).

#### Learning-based control and perception

1. [PoseCNN: A Convolutional Neural Network for 6D Object Pose Estimation in Cluttered Scenes](#). Yu Xiang, Tanner Schmidt, Venkatraman Narayanan, & Dieter Fox.
2. [MPC-Net: A First Principles Guided Policy Search](#). Jan Carius, Farbod Farshidian, & Marco Hutter.
3. [DeepMPC: Learning Deep Latent Features for Model Predictive Control](#). Ian Lenz, Ross Knepper, & Ashutosh Saxena.

#### Interaction with the physical environment

1. [In-Hand Manipulation via Motion Cones](#). Nikhil Chavan-Dafle, Rachel Holladay, & Alberto Rodriguez.
2. [TossingBot: Learning to Throw Arbitrary Objects with Residual Physics](#). Andy Zeng, Shuran Song, Johnny Lee, Alberto Rodriguez, & Thomas Funkhouser.
3. [Dex-Net 2.0: Deep Learning to Plan Robust Grasps with Synthetic Point Clouds and Analytic Grasp Metrics](#). Jeffrey Mahler, Jacky Liang, Sherdil Niyaz, Michael Laskey, Richard Doan, Xinyu Liu, Juan Aparicio Ojea, & Ken Goldberg.

#### Interaction with humans

1. [Shared Autonomy via Hindsight Optimization](#). Shervin Javdani, Siddhartha S. Srinivasa, & J. Andrew Bagnell.

2. [Learning Latent Representations to Influence Multi-Agent Interaction](#). Annie Xie, Dylan Losey, Ryan Tolsma, Chelsea Finn, & Dorsa Sadigh.
3. [Cooperative Inverse Reinforcement Learning](#). Dylan Hadfield-Menell, Anca Dragan, Pieter Abbeel, & Stuart Russell.