

Assignment 1

*Instructor: Rajesh Sundaresan**Scribe: Premkumar K.*

General guidelines:

- Refer lecture 10 for notations.
- Use Matlab for computations.
- Label your axes, provide legend. The output of your program should be a display on the main window on simulation parameters and the plot.
- Plot the $R_1 = R_2$ line in your plots for reference.
- Comment your Matlab code and make it as modular as possible.

1. For $Z \in \mathcal{P}'(P_1, P_2)$, compute and plot $\mathcal{R}(Z)$.
2. Write a program to plot an approximation to \mathcal{G}' . Verify \mathcal{G}' with regions in HK 1981.
3. Write a program to plot an approximation to $\mathcal{G}_2'^*$ with $\mathbb{Q} = \{1, 2\}$ where $\mathcal{G}_2'^* = \text{closure} \bigcup_{Z \in \mathcal{P}_2'^*(P_1, P_2)} \mathcal{R}(Z)$.
4. Draw the TDM/FDM region.