The second midterm exam will be held in class
218 Ceramics Bldg Thu, April 18, 9:30 – 10:50 a.m.

Calculators will not be allowed (nor will they be helpful). You may bring two sheets of notes, double-sided.

Any formulae that you may need should be included on this sheet of notes!

The exam will cover all of the material covered up to the lecture given on Thursday, April 11. In particular, I expect you to understand perfectly,

1. State space models (from the beginning of the semester), and the relation with ODE and transfer function models.
2. Rise time, overshoot, settling time, tracking, steady-state error, and disturbance rejection.
   How to achieve these based on frequency domain concepts?
3. Frequency domain foundations: Nyquist plots, Bode plots.
4. Stability criteria in the frequency domain: \( N = Z - P \), and the relationship between frequency domain and the root locus methods.
5. Frequency domain design: Lead/Lag/PI/PD compensation. Phase and gain margins.

Office hours: Prof. Raginsky will hold office hours at the usual time and place.
Also, in anticipation of a crowd, there will be additional office hours next week (note different location):
**Wednesday, April 17, 1:30–3:00 pm, 141 CSL.**

June Chongvisal will have her usual office hours:
**Friday, April 12, 10:00–11:00 am, 330N EL.**