**Class1 & 2.**

Review

1. **Papers review of Simulation**
2. **Simulation requires assumptions, list a few**
3. Example Pipeline of sugar kelp breeding or wheat breeding (TBD)
4. **What can we change in the pipeline**

Practice

1. Set up AlphaSimR
2. Objectives :
3. Determine the simulated breeding pipeline
4. Set up assumptions, and input empirical values from breeding program
5. Create a founder population
6. Create breeding populations based on a. and b.
7. How to keep breeding lines “records”
8. How to Get “true” breeding values
9. How to Get GEBVs
10. Plot Compare b. and c.
11. How to Get GS Accuracy
12. Estimate genetic gain between generations
13. Plot i.

Homework:

Change parameters, e.g. h2, selection intensity, # of phenotypic plots being evaluated etc and evaluate the results differences for 2-i. and 2-j.

**Class 2:**

TBD

Look at inbreeding depression: difference of BVs of an individual vs selfed progenies?