[ssierra2/Agro932\_Homework1 (github.com)](https://github.com/ssierra2/Agro932_Homework1)

AGRO-932 Spring 2022

HW1 (100 points):

Due Date: Feb. 15th, 2022 at 11 AM

Simulate an NGS dataset for two populations with a small reference genome (< 1 Mb) of your

choice, each population with 10 diploid individuals, to address a hypothesis about population

differentiation.

1. Establish a version-controlled directory system to host the project (<https://github.com/ssierra2/Agro932_Homework1> ).

Show your work in the GitHub repository in a user-friendly and reproducible manner.

2. Describe your simulation strategy and the hypothesis to test (positive, negative, or

neutral selection).

3. Calculate thetas for each population and compute Fst between the two populations.

4. Visualize and briefly interpret your results.