Python file: **Muts\_Rank**  (from Mariana parallel with original fitness)

Testing Mutations

**Fixed:** **rank\_sel** single\_point\_XO Pop=500 Gens =300

Running time aprox 20 min

A graph of different colored lines

Description automatically generated

Run #1, Generation #300: Best Fitness: 840, Time: 159.66 seconds

Run #1, Generation #300: Best Fitness: 807, Time: 159.78 seconds

Run #1, Generation #300: Best Fitness: 843, Time: 160.63 seconds

Run #1, Generation #300: Best Fitness: **788**, Time: 164.18 seconds

Run #2, Generation #300: Best Fitness: 815, Time: 122.18 seconds

Run #2, Generation #300: Best Fitness: 840, Time: 122.73 seconds

Run #2, Generation #300: Best Fitness: 847, Time: 123.49 seconds

Run #2, Generation #300: Best Fitness: 810, Time: 127.08 seconds

Run #3, Generation #300: Best Fitness: 829, Time: 124.96 seconds

Run #3, Generation #300: Best Fitness: 846, Time: 124.74 seconds

Run #3, Generation #300: Best Fitness: 839, Time: 126.02 seconds

Run #3, Generation #300: Best Fitness: 834, Time: 130.89 seconds

Run #4, Generation #300: Best Fitness: 808, Time: 125.61 seconds

Run #4, Generation #300: Best Fitness: 818, Time: 125.67 seconds

Run #4, Generation #300: Best Fitness: 825, Time: 127.04 seconds

Run #4, Generation #300: Best Fitness: 816, Time: 128.91 seconds

Run #5, Generation #300: Best Fitness: 802, Time: 124.54 seconds

Run #5, Generation #300: Best Fitness: 814, Time: 124.98 seconds

Run #5, Generation #300: Best Fitness: 822, Time: 125.53 seconds

Run #5, Generation #300: Best Fitness: 844, Time: 128.66 seconds

Run #6, Generation #300: Best Fitness: 830, Time: 124.56 seconds

Run #6, Generation #300: Best Fitness: 845, Time: 124.58 seconds

Run #6, Generation #300: Best Fitness: 829, Time: 125.8 seconds

Run #6, Generation #300: Best Fitness: 832, Time: 129.29 seconds

Run #7, Generation #300: Best Fitness: 835, Time: 124.25 seconds

Run #7, Generation #300: Best Fitness: 824, Time: 124.61 seconds

Run #7, Generation #300: Best Fitness: 832, Time: 125.68 seconds

Run #7, Generation #300: Best Fitness: 821, Time: 128.99 seconds

Run #8, Generation #300: Best Fitness: 834, Time: 126.66 seconds

Run #8, Generation #300: Best Fitness: 830, Time: 126.65 seconds

Run #8, Generation #300: Best Fitness: 831, Time: 127.52 seconds

Run #8, Generation #300: Best Fitness: 827, Time: 131.05 seconds

Run #9, Generation #300: Best Fitness: 823, Time: 123.74 seconds

Run #9, Generation #300: Best Fitness: 832, Time: 123.95 seconds

Run #9, Generation #300: Best Fitness: 830, Time: 125.03 seconds

Run #9, Generation #300: Best Fitness: 831, Time: 128.32 seconds

Run #10, Generation #300: Best Fitness: 845, Time: 123.69 seconds

Run #10, Generation #300: Best Fitness: 830, Time: 123.6 seconds

Run #10, Generation #300: Best Fitness: 821, Time: 125.02 seconds

Run #10, Generation #300: Best Fitness: 831, Time: 129.75 seconds

Run #1, Generation #300: Best Fitness: 824, Time: 112.61 seconds

Run #2, Generation #300: Best Fitness: 811, Time: 102.73 seconds

Run #3, Generation #300: Best Fitness: 823, Time: 104.67 seconds

Run #4, Generation #300: Best Fitness: 809, Time: 103.59 seconds

Run #5, Generation #300: Best Fitness: 813, Time: 102.83 seconds

Run #6, Generation #300: Best Fitness: 833, Time: 105.59 seconds

Run #7, Generation #300: Best Fitness: 832, Time: 104.13 seconds

Run #8, Generation #300: Best Fitness: 806, Time: 100.45 seconds

Run #9, Generation #300: Best Fitness: 816, Time: 102.8 seconds

Run #10, Generation #300: Best Fitness: 798, Time: 104.2 seconds