GQPMC Report
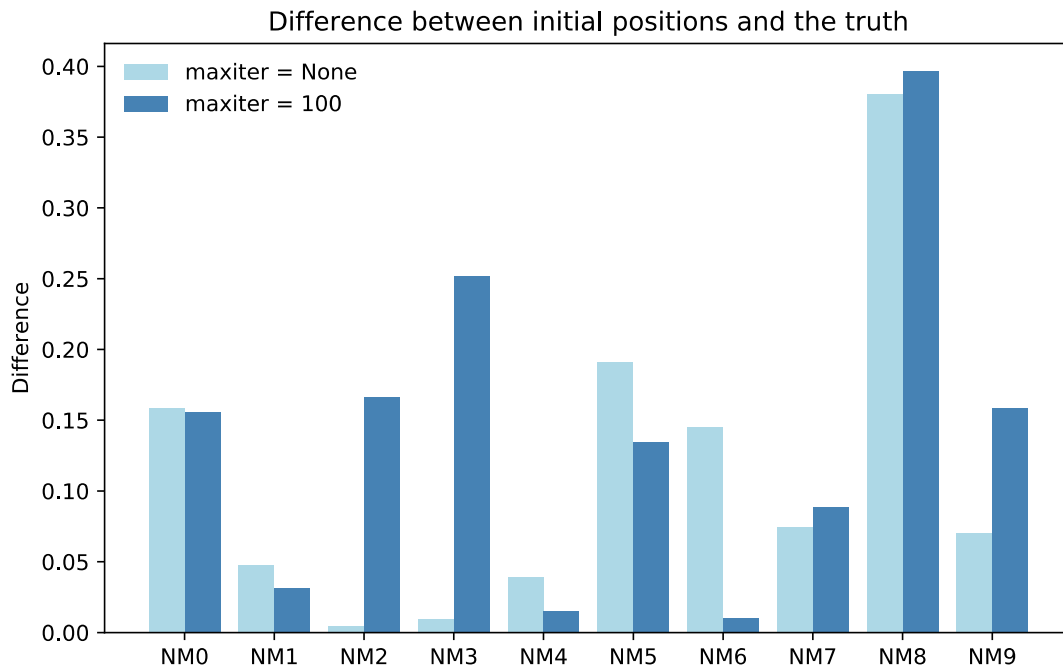
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1. **Method Test; Nelder-Mead Max Iteration - Accuracy**
    The plot is attached below:

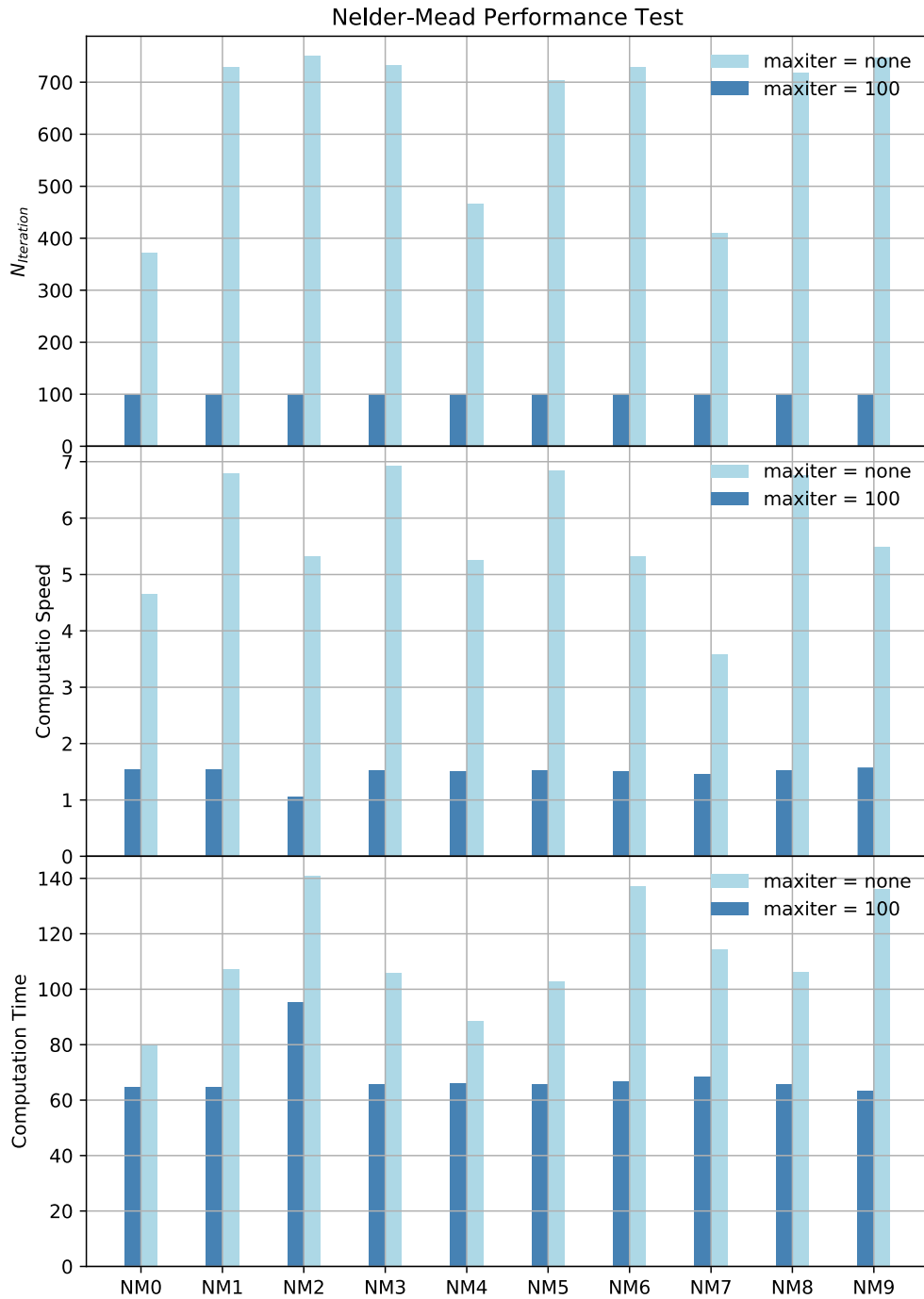Difference between initial positions and the truth

Result Summary
a) Half of the galaxies showed better performance with max iteration = None, which gives a bit inconclusive result.
b) Given that NM2 and NM3 showed significantly increased accuracy with maxiter = None, while only maxiter = None was outperformed by maxiter = 100 in NM6, it looks like changing the maxiter to None will be effective.

2. **Method Test; Nelder-Mead Max Iteration – Performance Test**
    The plot is attached below:

Nelder-Mead Performance Test

Result Summary

a) Considering the computation speed and computation time required to get optimization done, there doesn't seem to exist significant slow-down resulting from removing the upper-limit of max iteration number. Of course, one could just increase the upper limit of the max iteration number instead of setting it to None.