Log Rank Stability Interval Report
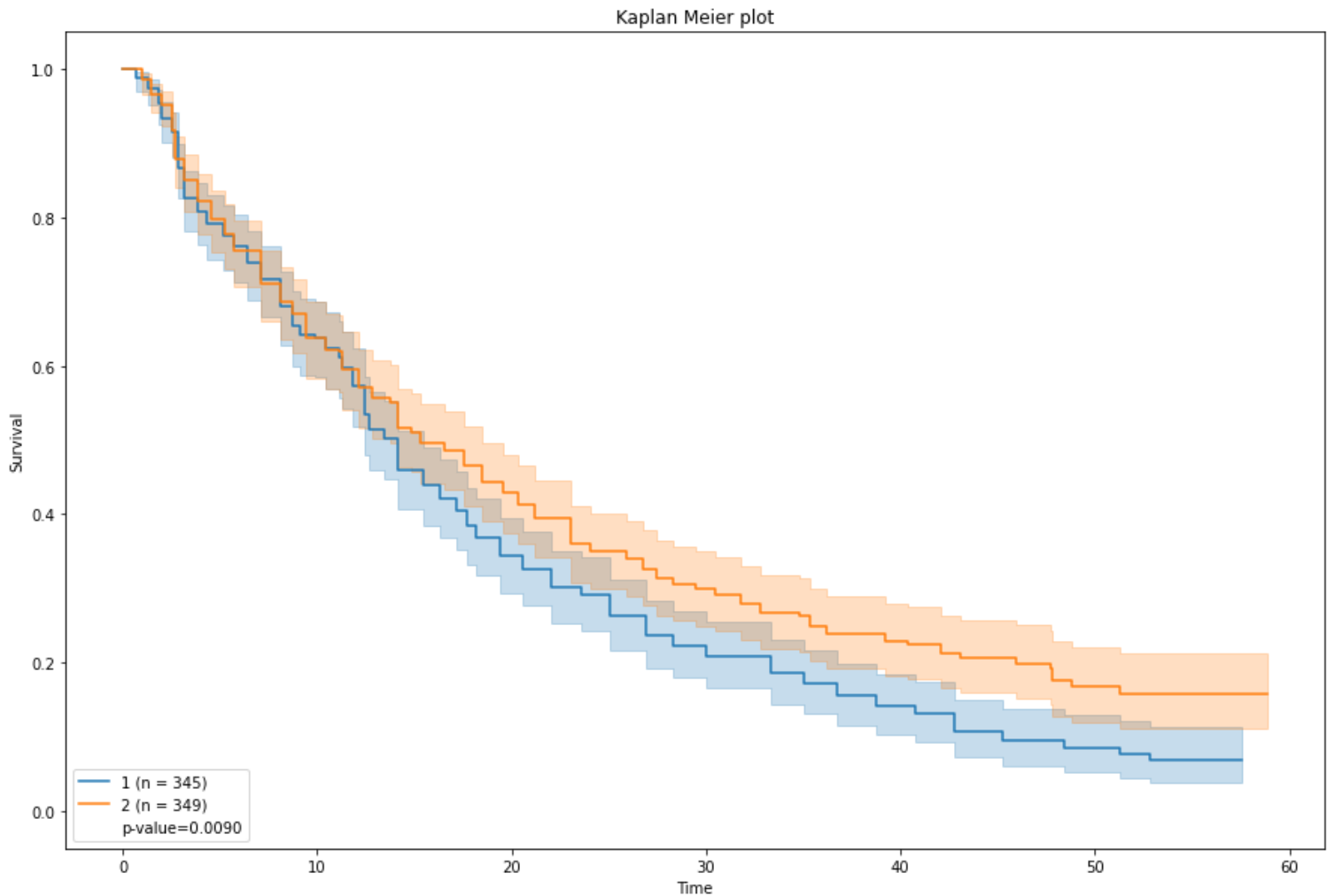
Article: Combination Anastrozole and Fulvestrant in Metastatic Breast Cancert

Link: https://www.nejm.org/doi/full/10.1056/nejmoa1201622

KM Plot

Group 2 with a better survival score: 0.16

Explore alpha rejection

On number_of_changes=8 and alpha=0.05. The null hypothes is rejected

	Number_of_changes	MIN_pvalue	MAX_pvalue
0	1	0.006612	0.011880
1	2	0.004925	0.015349
2	3	0.003701	0.019372
3	4	0.002807	0.024288
4	5	0.002115	0.030250
5	6	0.001582	0.037429
6	7	0.001176	0.045983
7	8	0.000868	0.056091

ORIGINAL P-vlaue: 0.0090

Compare time calculation between efficient and griddy methods

The two alogrithms agree with P value MAX up to max interval N=20:
Greedy algorithm:
[604, 603, 602, 601, 0, 1, 2, 3, 4, 5, 6, 7, 8, 15, 14, 13, 9, 11, 10, 12]
Efficient algorithm:
[604, 603, 602, 601, 0, 1, 2, 3, 4, 5, 6, 7, 8, 15, 14, 13, 9, 11, 10, 12]

	Number_of_changes	Method	ORIGINAL_pvalue	MIN_pvalue	MAX_pvalue	RUNNING time
32	17	griddy	0.008953	0.000045	0.246953	1.362309
33	17	efficient	0.008953	0.000045	0.246953	4.500288
34	18	griddy	0.008953	0.000031	0.282303	1.438583
35	18	efficient	0.008953	0.000031	0.282303	4.995058
36	19	griddy	0.008953	0.000022	0.320936	1.519690
37	19	efficient	0.008953	0.000022	0.320936	5.523686
38	20	griddy	0.008953	0.000015	0.362868	1.603367
39	20	efficient	0.008953	0.000015	0.362868	6.117021