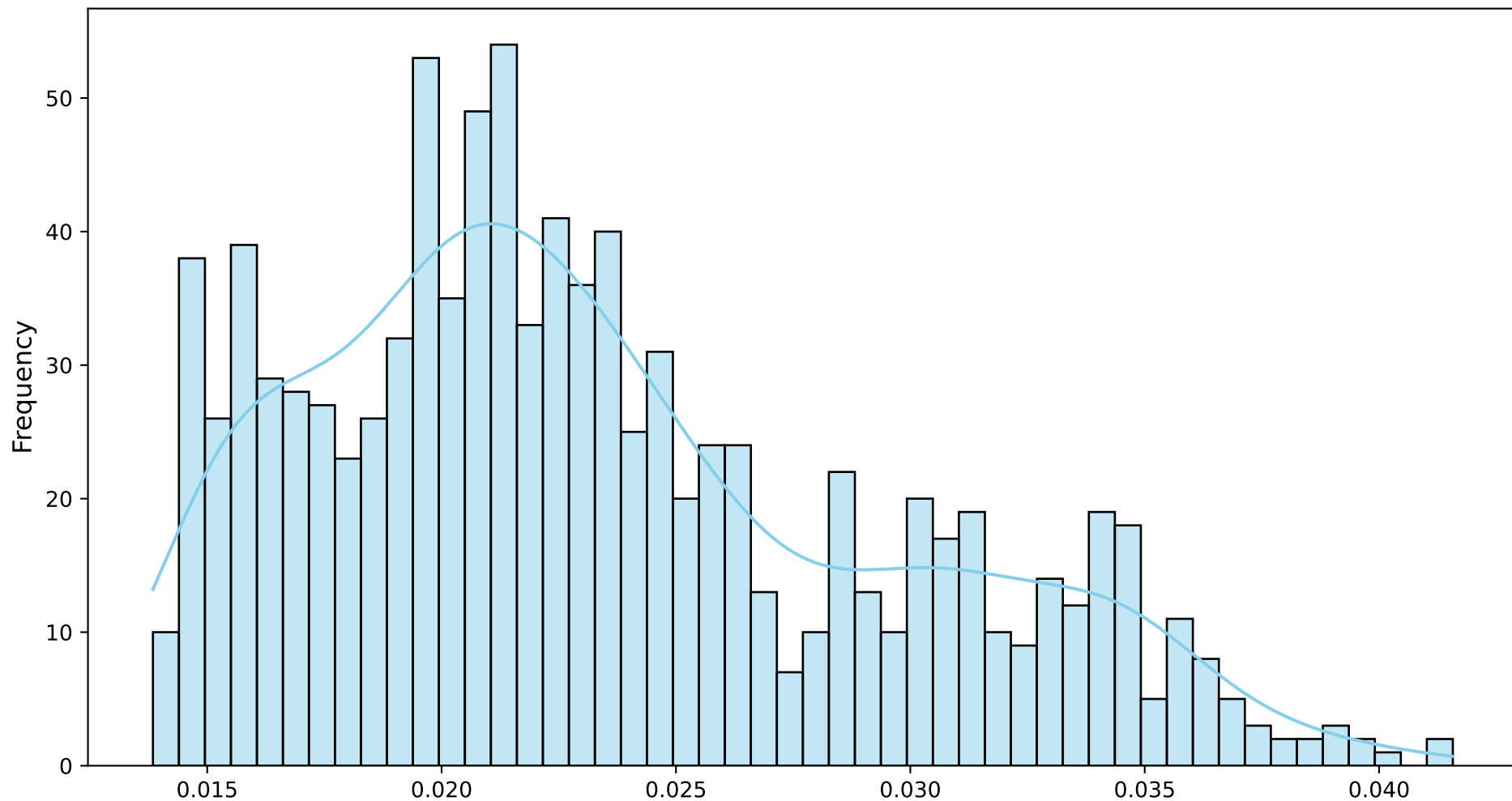


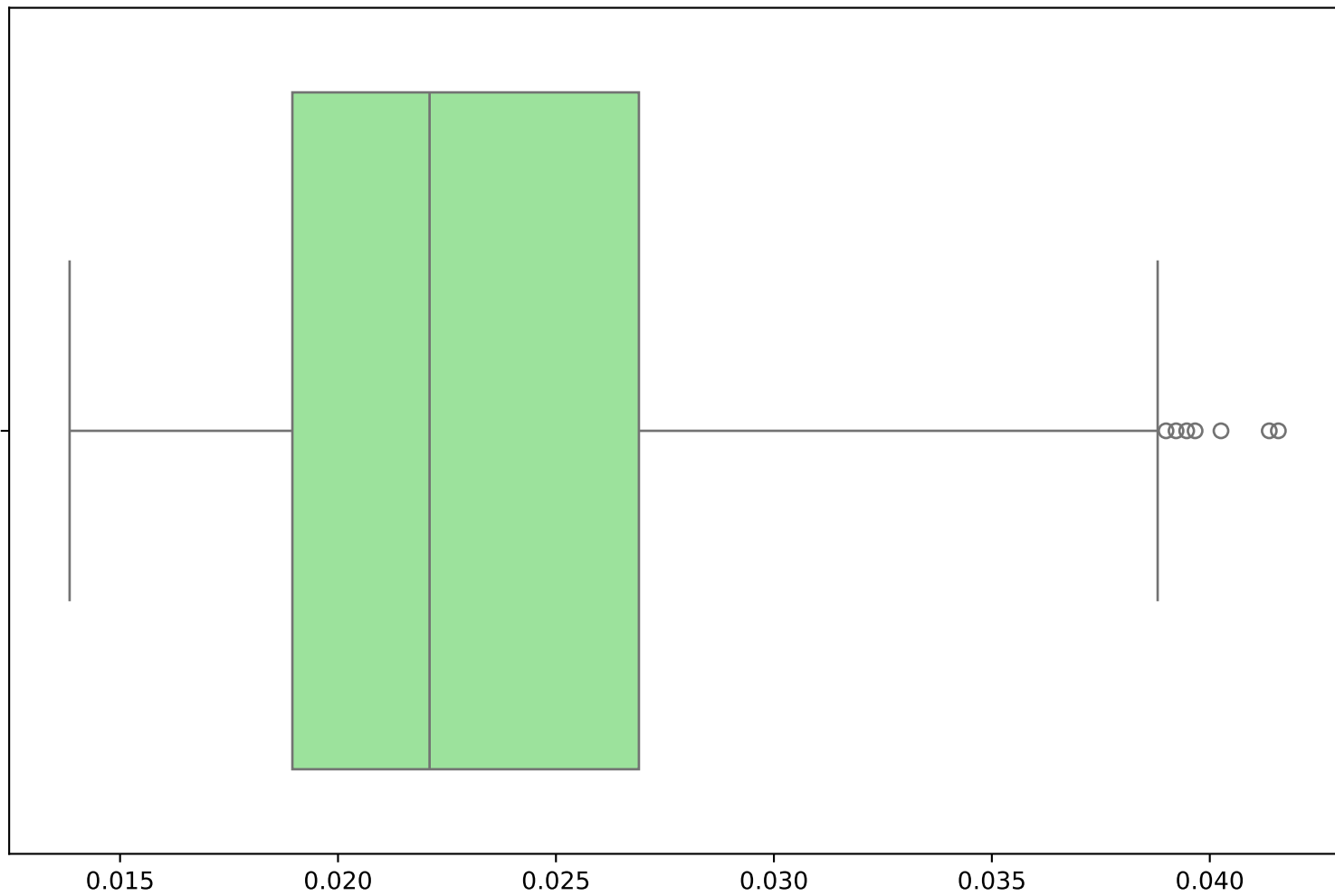
Distribution of Distances Across Permutations



Distance

Histogram showing how distances vary across all permutations.

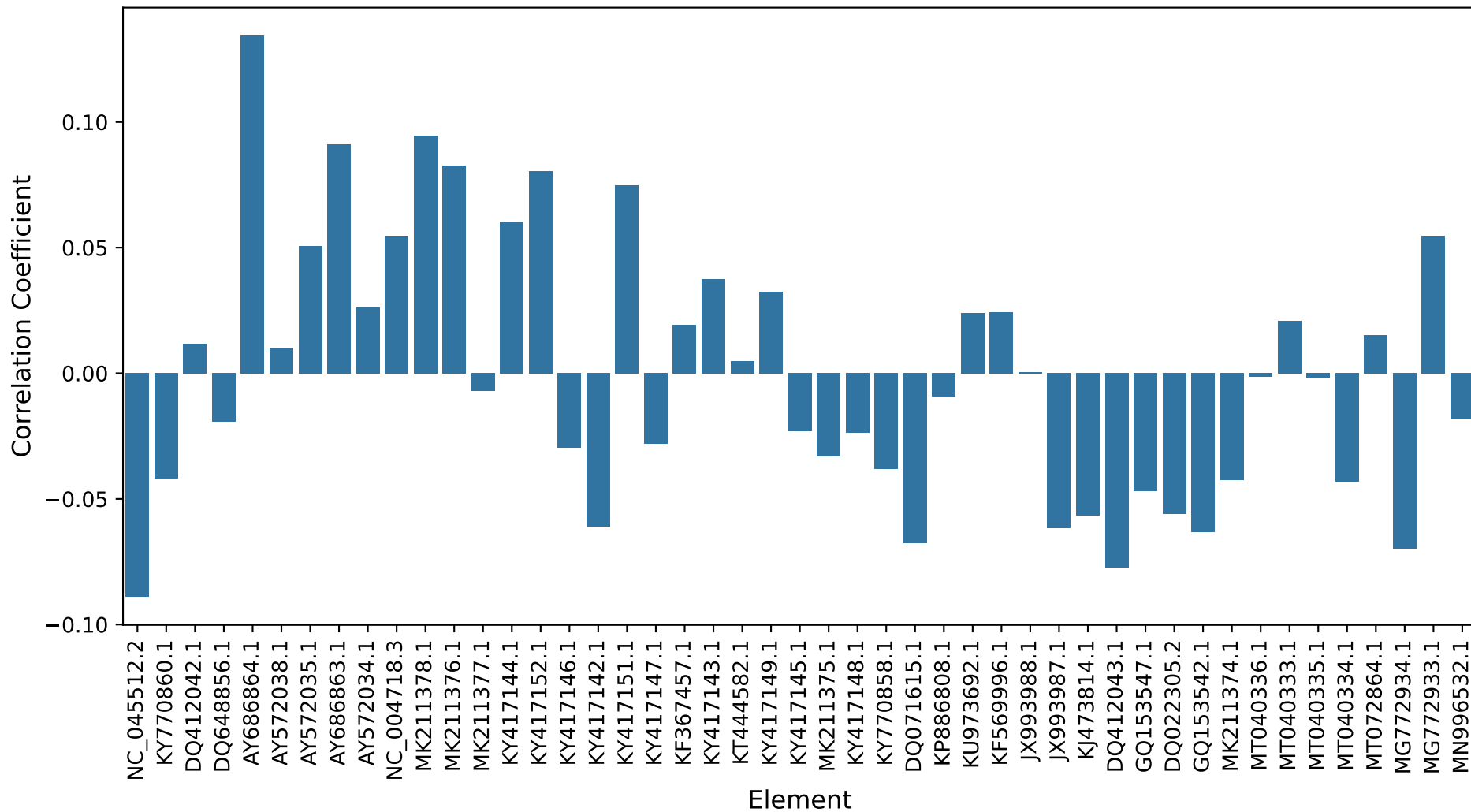
## Summary Statistics of Distances



Distance

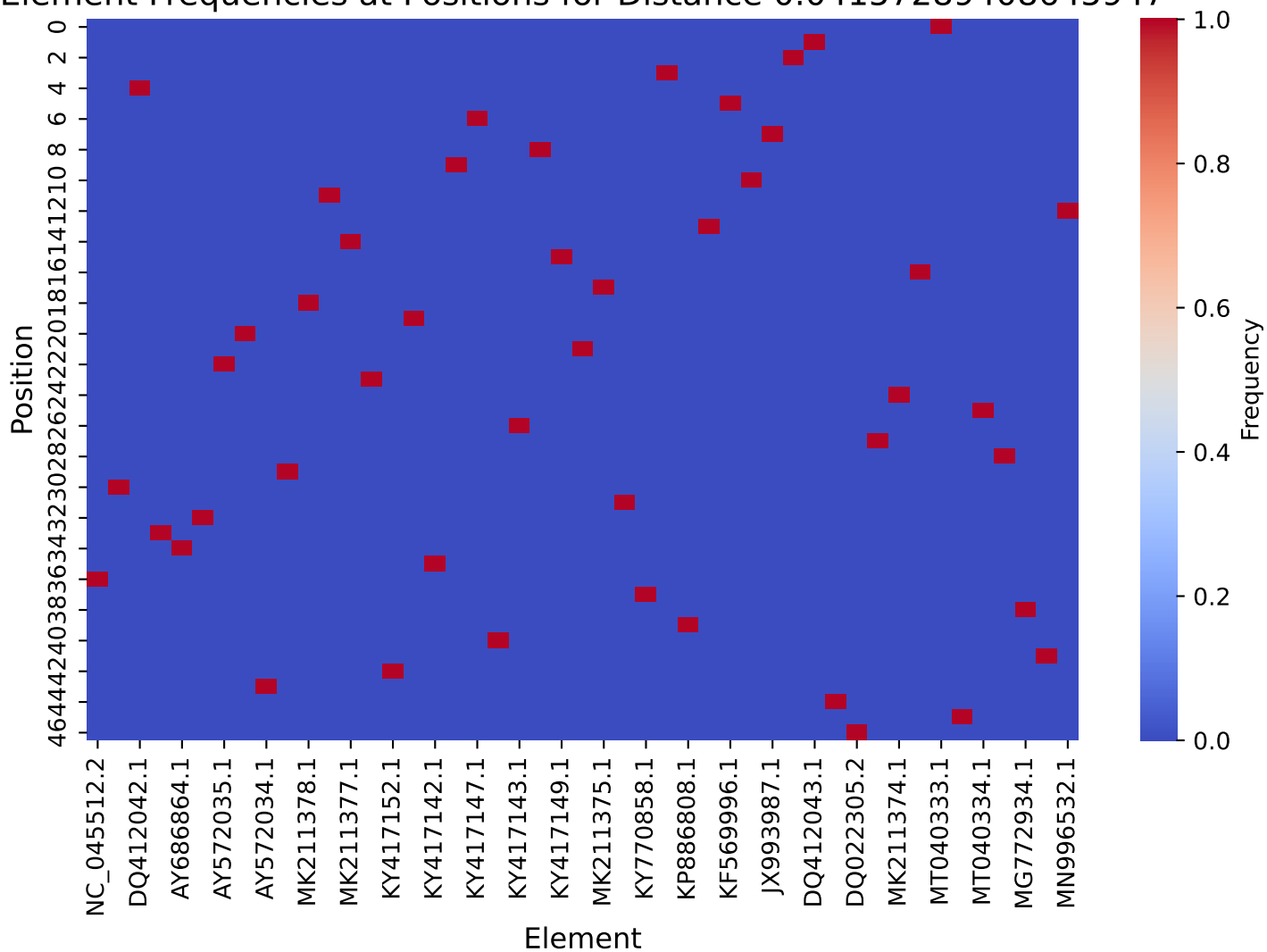
Boxplot illustrating the central tendency and dispersion of distances.

Correlation between Element Positions and Distance





### Element Frequencies at Positions for Distance 0.04157289408645947



## Statistical Summary of Distances

	Value
Mean	0.023303
Median	0.022100
Standard Deviation	0.006089
Variance	0.000037
Minimum	0.013842
Maximum	0.041573

Shapiro-Wilk Normality Test Results:		
Test	Statistic	p-value
Shapiro-Wilk	0.948599	3.505097e-18

## Permutations with Minimal Distance: 0.013842290244736846

AY686864.1, MK211376.1, KY417142.1, JX993987.1, KY417152.1, MG772933.1, KY417146.1, MT040336.1, KU973692.1, NC\_004718.3, MG772934.1, KY417143.1, MT040334.1, KY770860.1, MK211378.1, KP886808.1, KT444582.1, AY572038.1, DQ412043.1, MK211374.1, KY417147.1, KY417148.1, MT040333.1, KY417149.1, DQ071615.1, KY417151.1, JX993988.1, KF569996.1, KF367457.1, KY417145.1, MT072864.1, KY417144.1, MK211375.1, GQ153542.1, MT040335.1, DQ648856.1, DQ412042.1, GQ153547.1, KJ473814.1, DQ022305.2, NC\_045512.2, MK211377.1, MN996532.1, AY572034.1, KY770858.1, AY686863.1, AY572035.1

## Permutations with Maximal Distance: 0.04157289408645947

MT040333.1, DQ412043.1, KJ473814.1, DQ071615.1, DQ412042.1, KF569996.1,  
KY417147.1, JX993987.1, KT444582.1, KY417151.1, JX993988.1, MK211376.1,  
MN996532.1, KU973692.1, MK211377.1, KY417149.1, MT040336.1, MK211375.1,  
MK211378.1, KY417146.1, AY686863.1, KY417145.1, AY572035.1, KY417144.1,  
MK211374.1, MT040334.1, KY417143.1, GQ153542.1, MT072864.1, NC\_004718.3,  
KY770860.1, KY417148.1, AY572038.1, DQ648856.1, AY686864.1, KY417142.1,  
NC\_045512.2, KY770858.1, MG772934.1, KP886808.1, KF367457.1, MG772933.1,  
KY417152.1, AY572034.1, GQ153547.1, MT040335.1, DQ022305.2