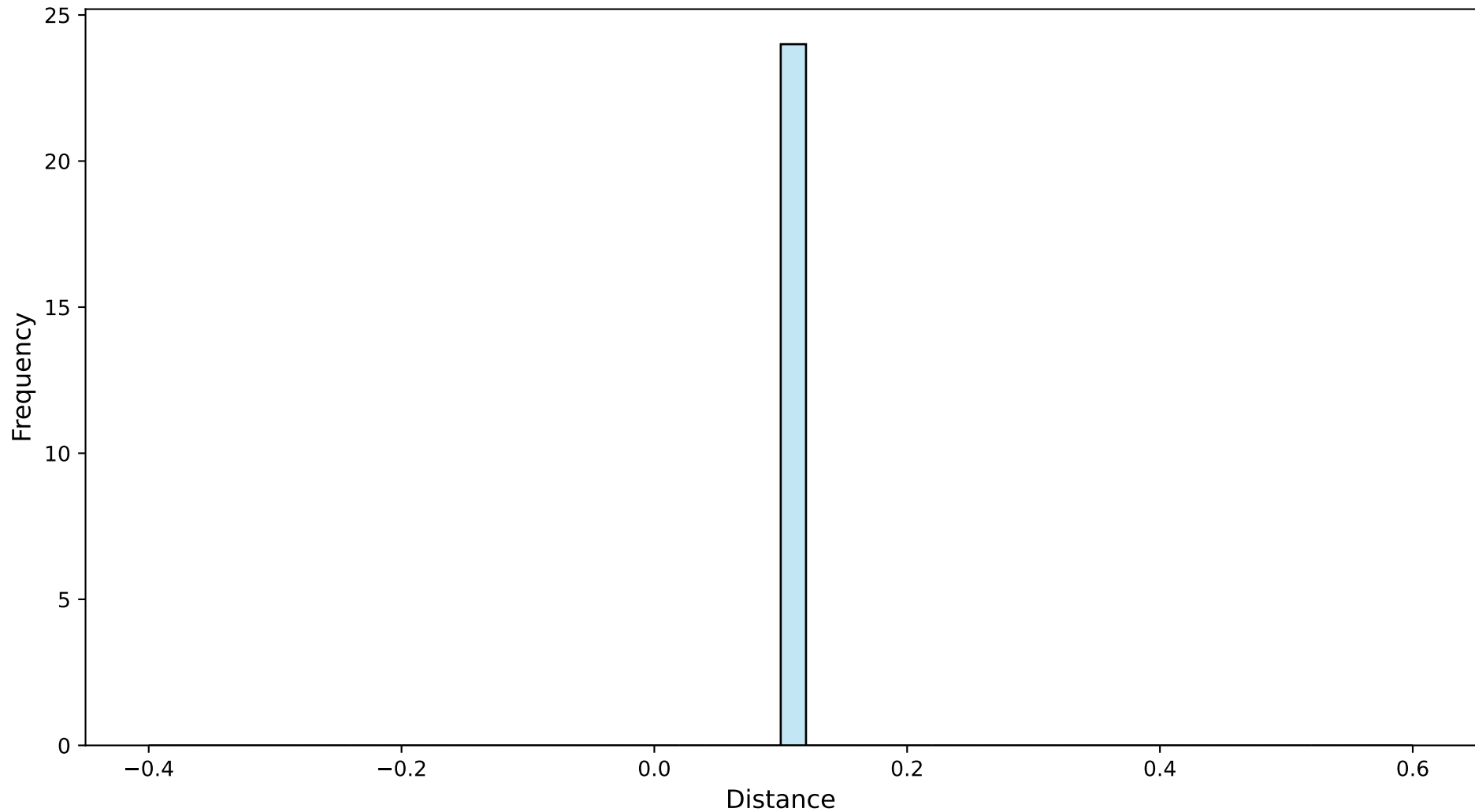


Distribution of Distances Across Permutations



Histogram showing how distances vary across all permutations.

## Summary Statistics of Distances

0.096

0.098

0.100

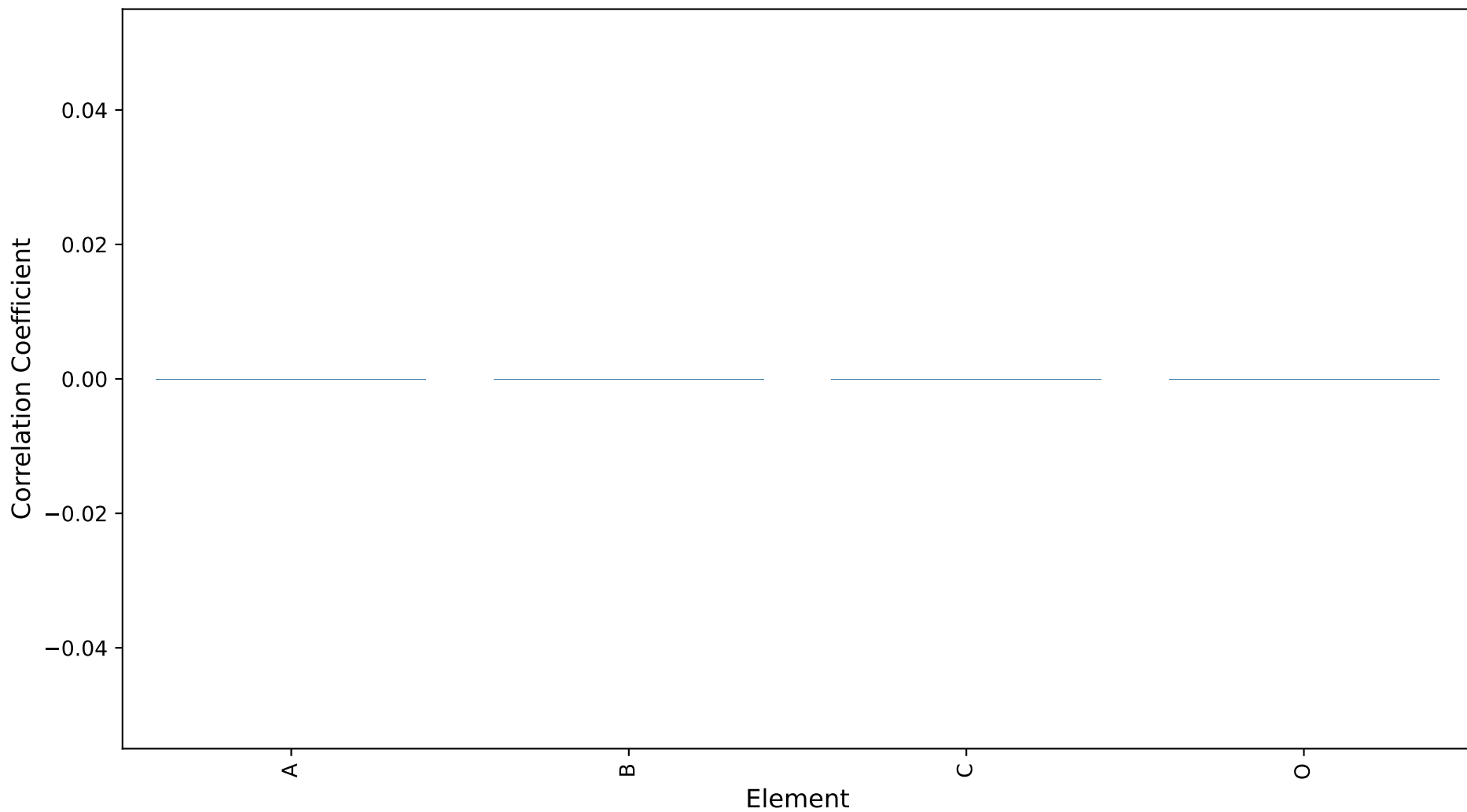
0.102

0.104

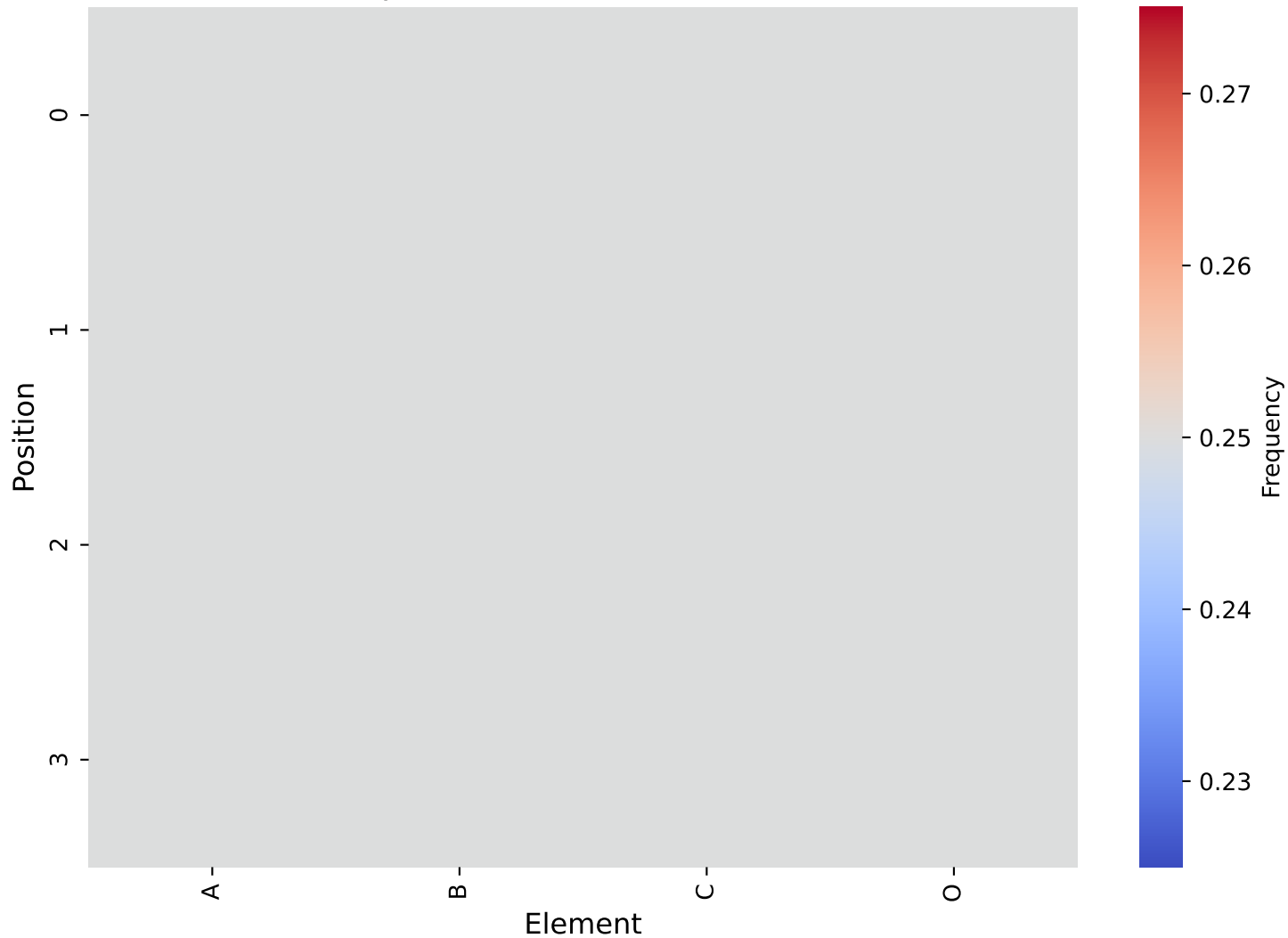
Distance

Boxplot illustrating the central tendency and dispersion of distances.

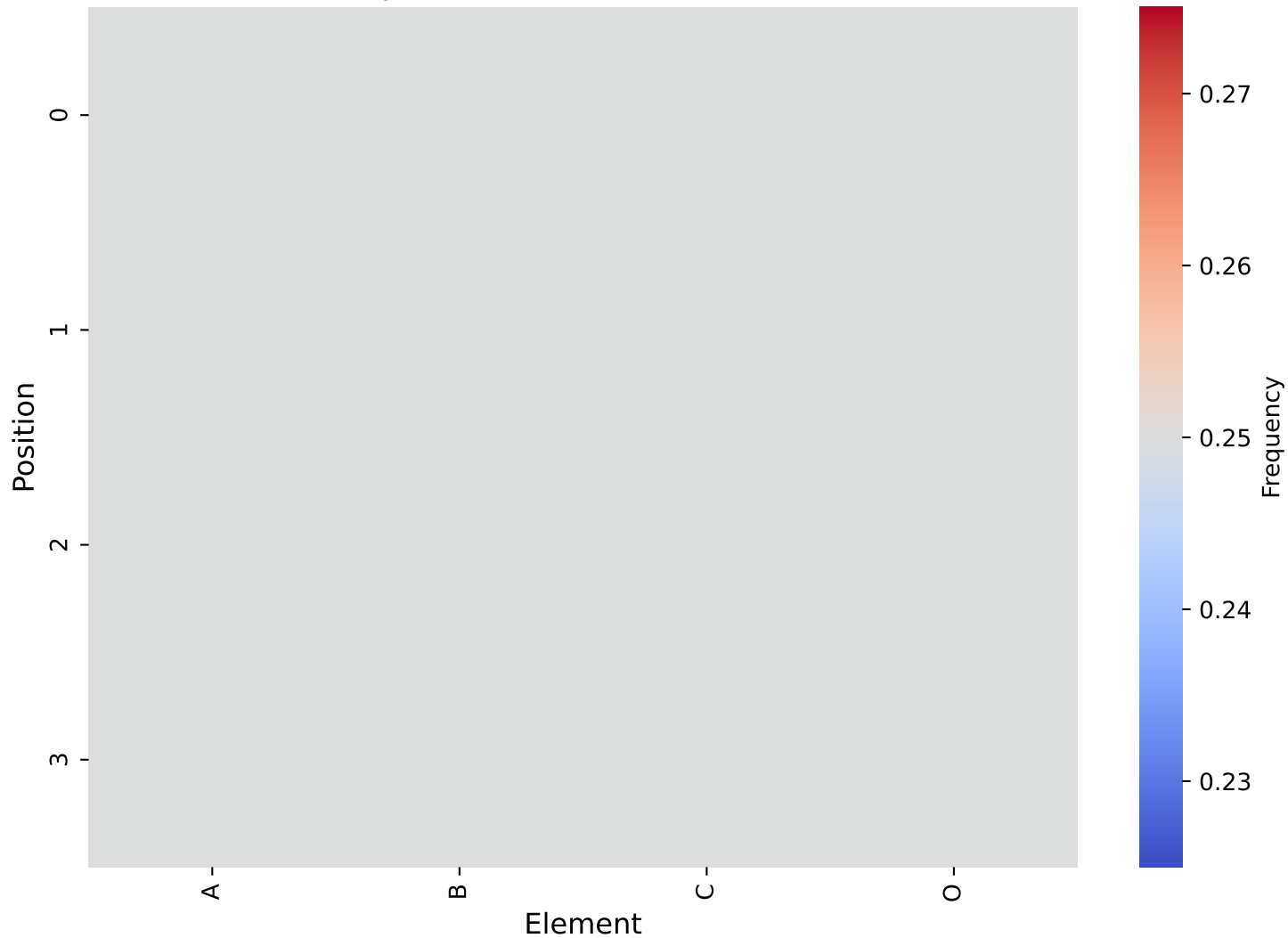
Correlation between Element Positions and Distance



Element Frequencies at Positions for Distance 0.1



Element Frequencies at Positions for Distance 0.1



# Statistical Summary of Distances

	Value
Mean	1.000000e-01
Median	1.000000e-01
Standard Deviation	1.387779e-17
Variance	1.925930e-34
Minimum	1.000000e-01
Maximum	1.000000e-01

## Shapiro-Wilk Normality Test Results:

	Test	Statistic	p-value
Shapiro-Wilk		1.0	1.0

## Permutations with Minimal Distance: 0.1

O, A, C, B  
A, B, C, O  
B, A, O, C  
B, A, C, O  
A, C, B, O  
C, B, O, A  
C, B, A, O  
C, O, B, A  
A, B, O, C  
C, A, B, O  
A, O, B, C  
A, C, O, B  
O, C, B, A  
O, B, A, C  
O, B, C, A  
C, O, A, B  
C, A, O, B  
O, A, B, C  
B, O, C, A  
A, O, C, B  
O, C, A, B  
B, O, A, C  
B, C, A, O  
B, C, O, A

Permutations resulting in the minimal total distance among trees.

## Permutations with Maximal Distance: 0.1

O, A, C, B  
A, B, C, O  
B, A, O, C  
B, A, C, O  
A, C, B, O  
C, B, O, A  
C, B, A, O  
C, O, B, A  
A, B, O, C  
C, A, B, O  
A, O, B, C  
A, C, O, B  
O, C, B, A  
O, B, A, C  
O, B, C, A  
C, O, A, B  
C, A, O, B  
O, A, B, C  
B, O, C, A  
A, O, C, B  
O, C, A, B  
B, O, A, C  
B, C, A, O  
B, C, O, A