

Complete Statistical Analysis Report

Filename: DailyDelhiClimateTest.csv
Number of permutations: 10
Number of bootstrap samples: 10
Row bootstrap sample fraction: 90.0%
Column bootstrap sample fraction: 90.0%
Number of perturbations: 10
Scale factor for perturbations: 0.1
Skip columns: 1
Normalization: z-score
Random seed: 42

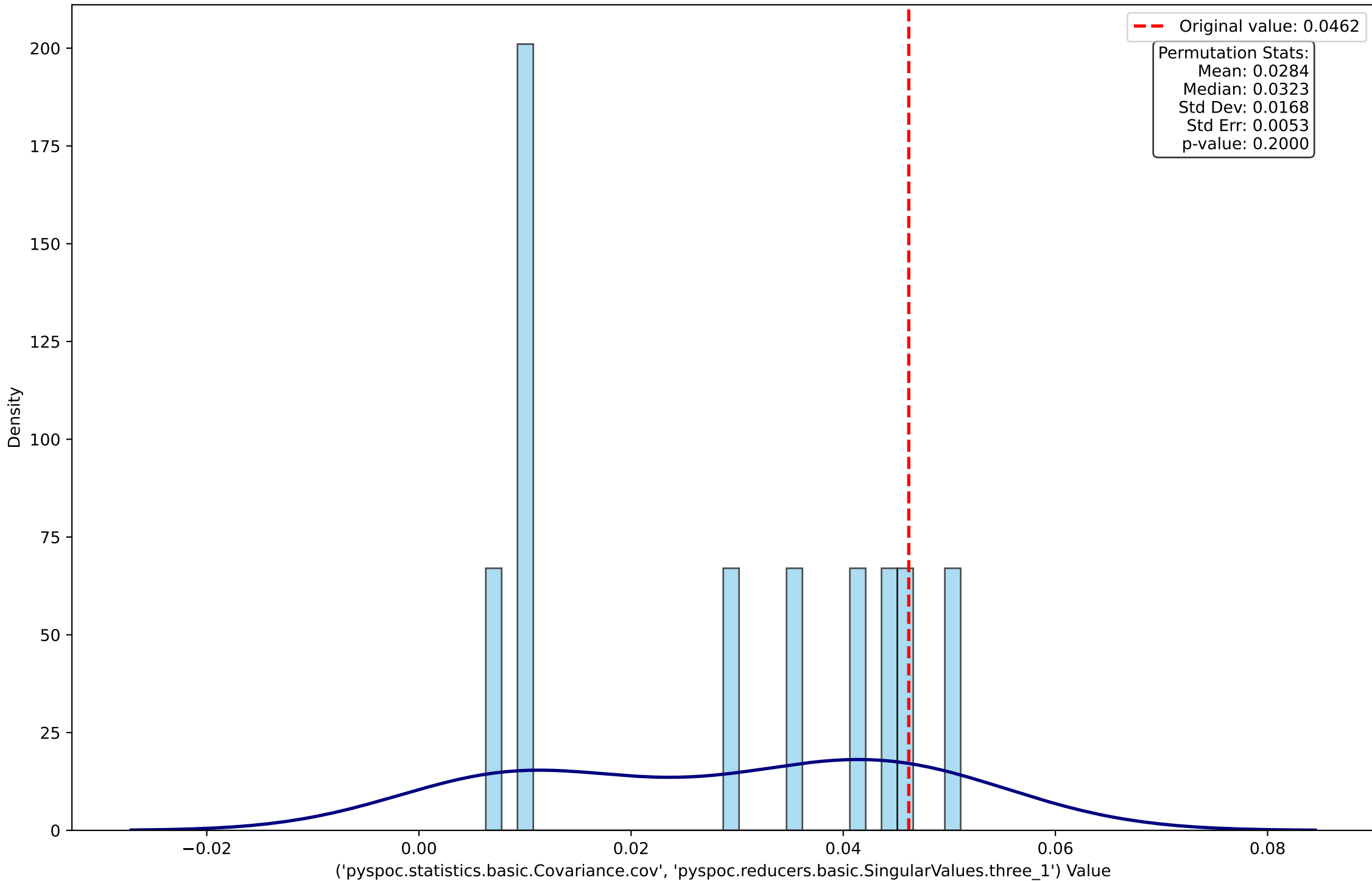
Analysis Methods:

- Permutation Test: Tests statistical significance
- Row Bootstrap: Tests robustness to sample variation
- Column Bootstrap: Tests robustness to feature selection

Permutation Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_1')

Original value: 0.0462

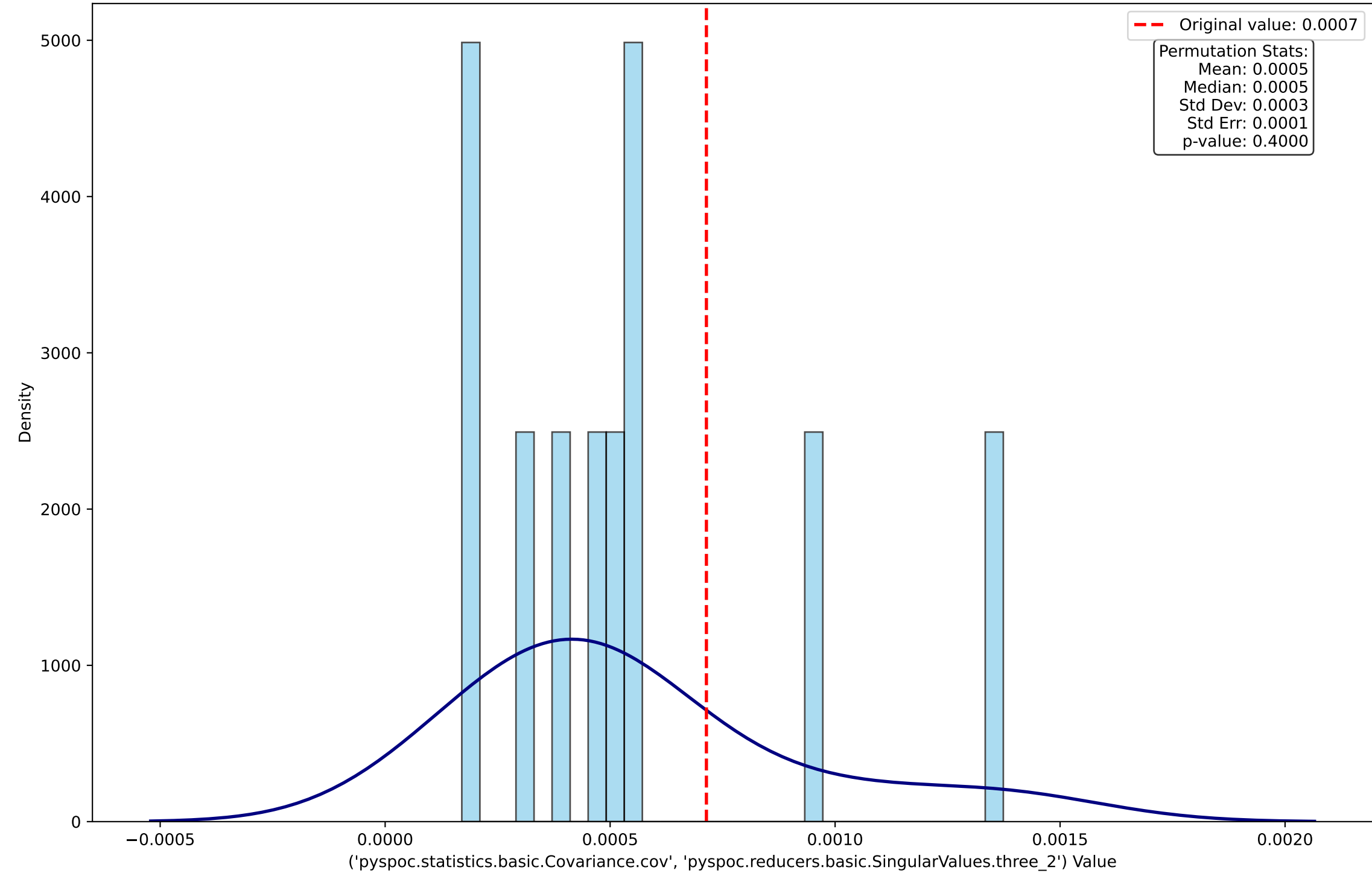
Permutation Stats:
Mean: 0.0284
Median: 0.0323
Std Dev: 0.0168
Std Err: 0.0053
p-value: 0.2000



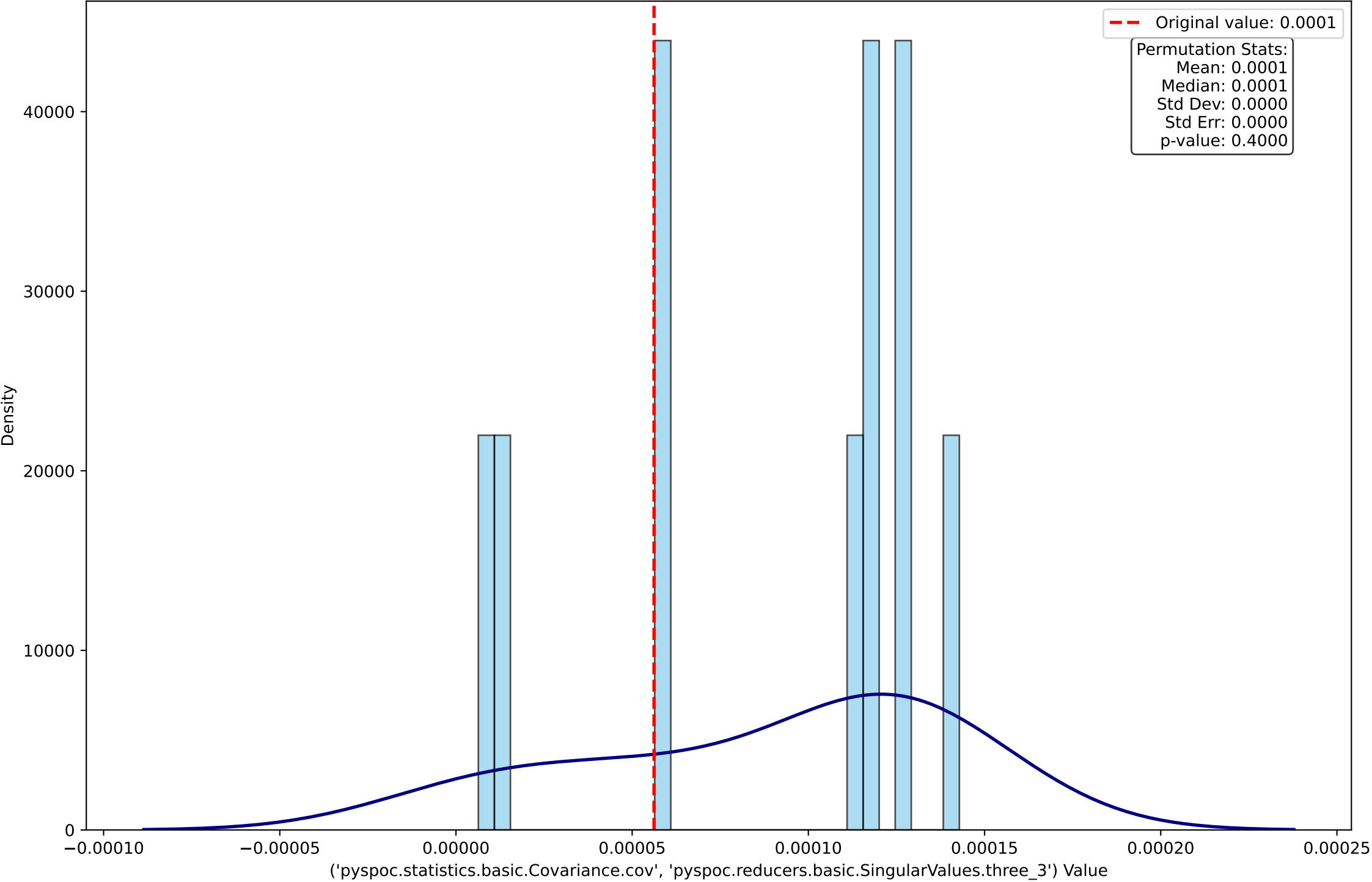
Permutation Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_2')

Original value: 0.0007

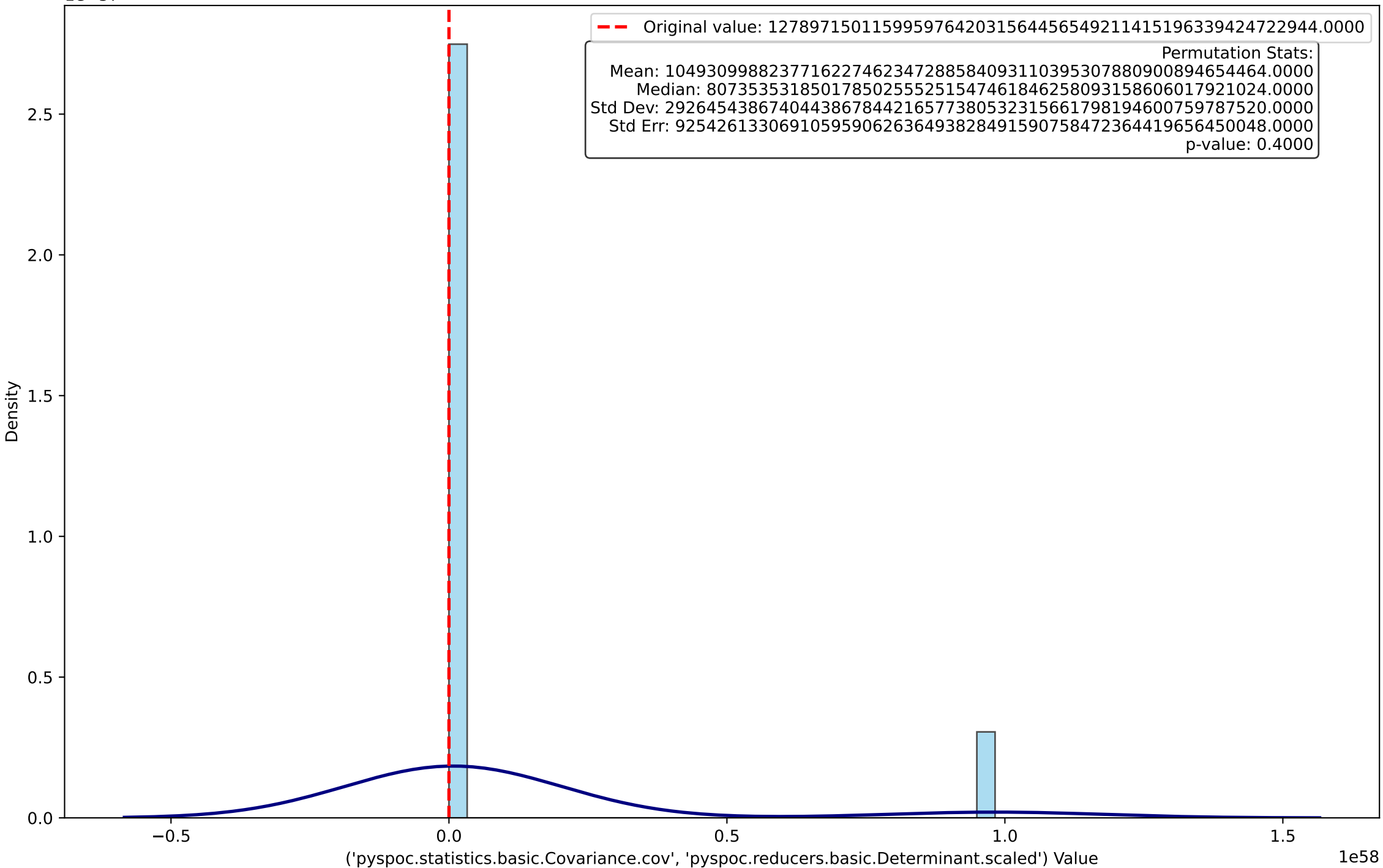
Permutation Stats:
Mean: 0.0005
Median: 0.0005
Std Dev: 0.0003
Std Err: 0.0001
p-value: 0.4000



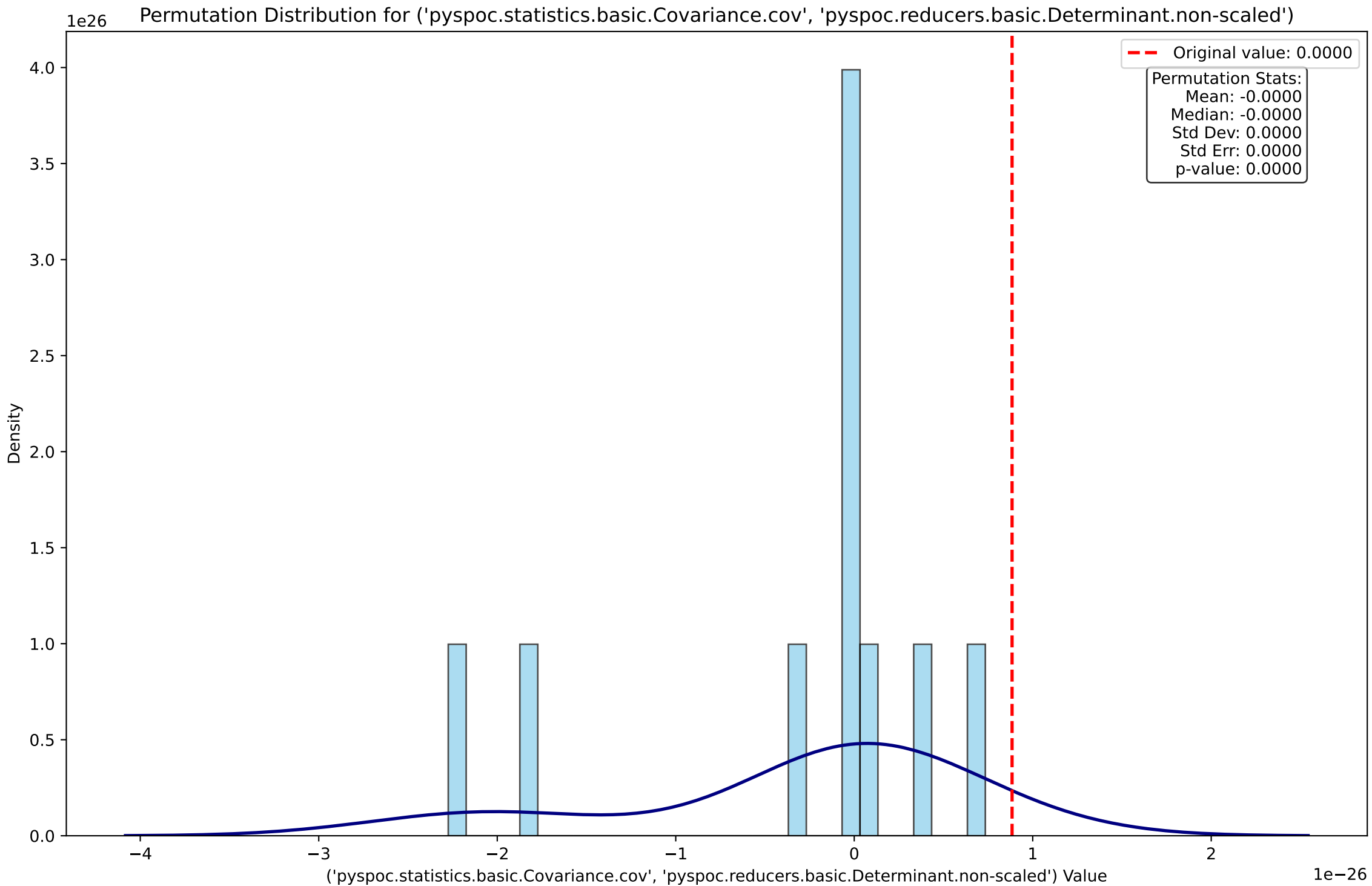
Permutation Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_3')



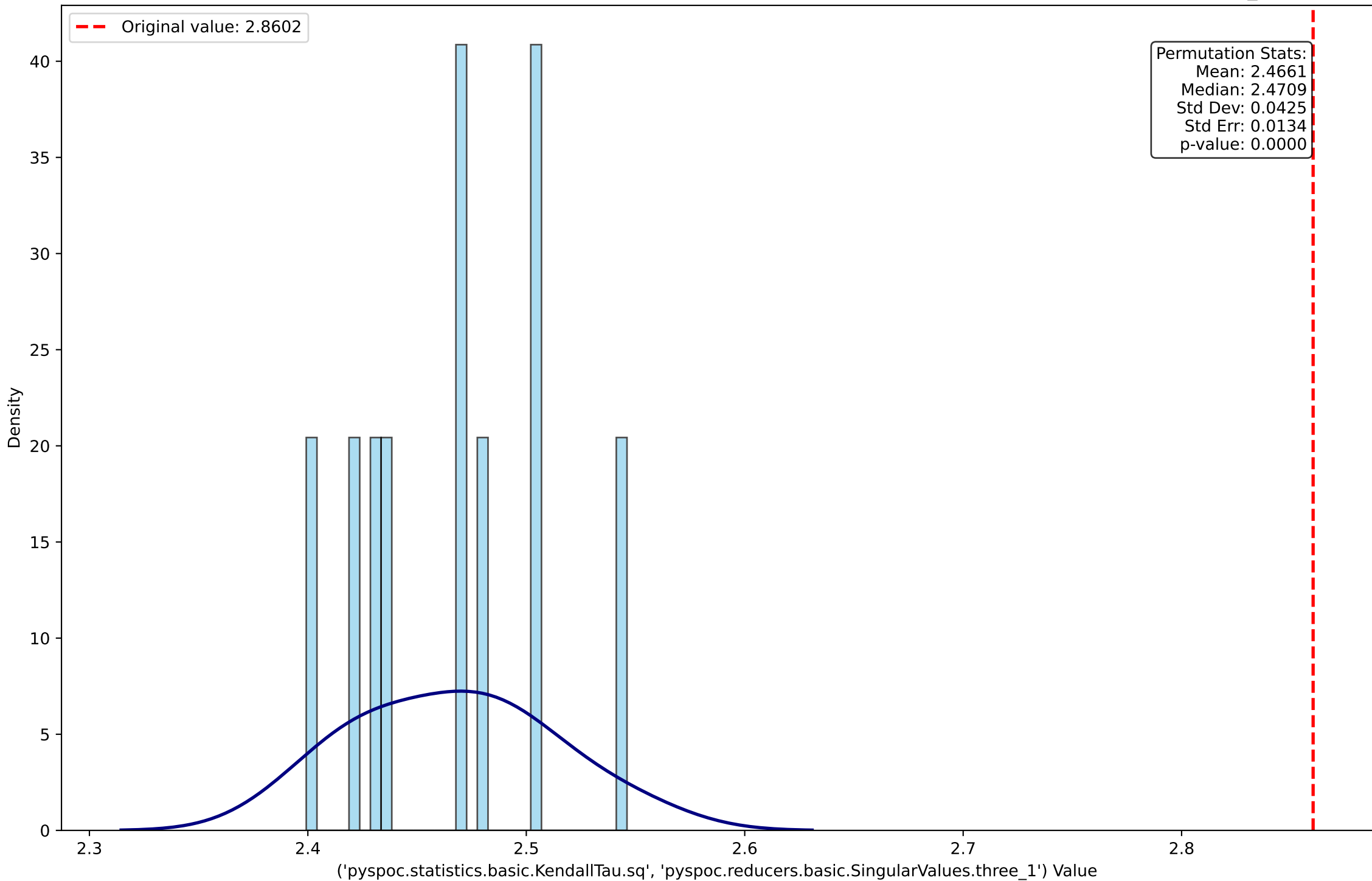
Permutation Distribution for ('pypoc.statistics.basic.Covariance.cov', 'pypoc.reducers.basic.Determinant.scaled')



Permutation Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.Determinant.non-scaled')



Permutation Distribution for ('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_1')



Permutation Distribution for ('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_2')

Original value: 0.6962

Permutation Stats:
Mean: 0.8986
Median: 0.8976
Std Dev: 0.0189
Std Err: 0.0060
p-value: 0.0000

Density

0

20

40

60

80

0.70

0.75

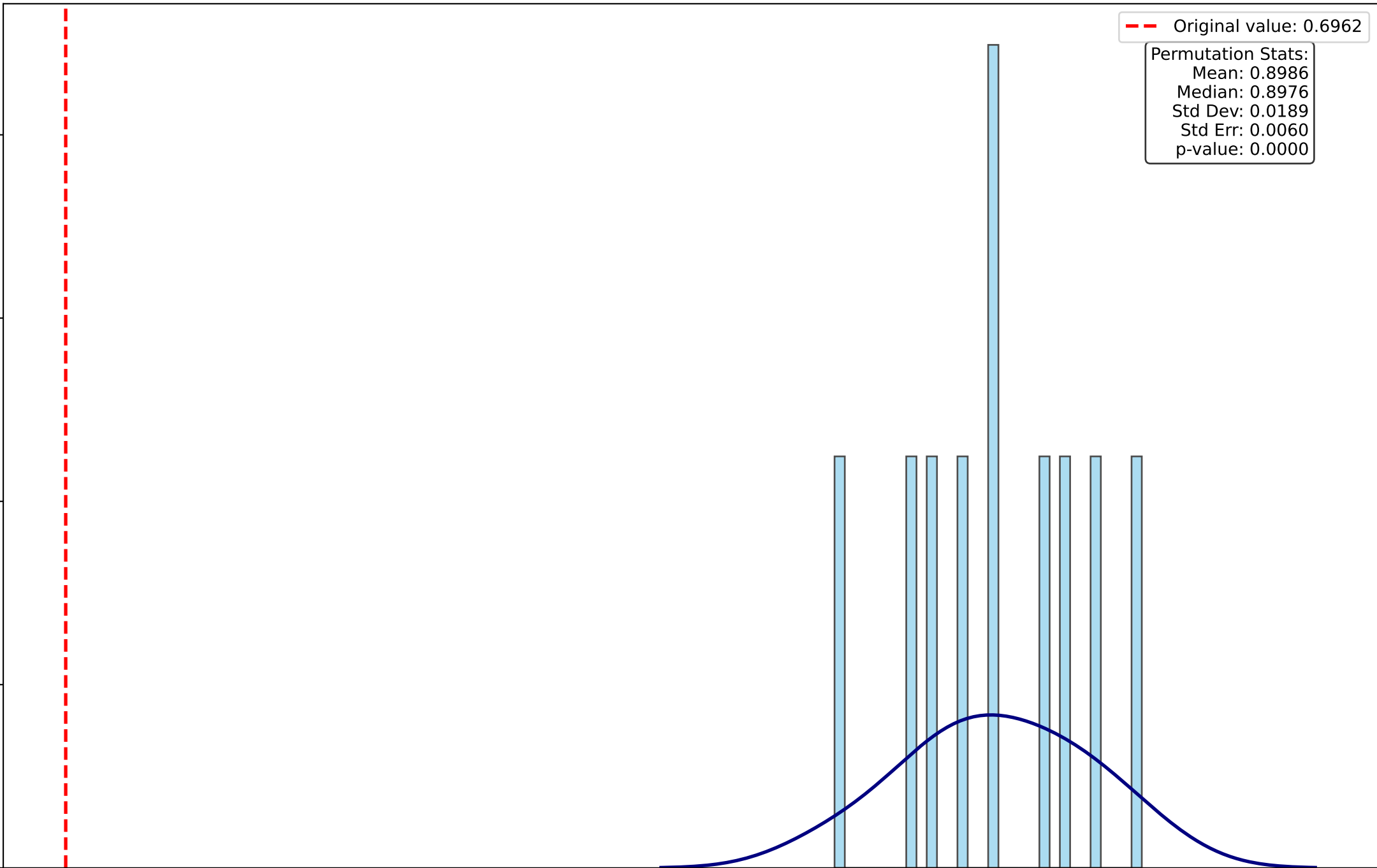
0.80

0.85

0.90

0.95

('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_2') Value



Permutation Distribution for ('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_3')

Original value: 0.3434

Permutation Stats:
Mean: 0.5066
Median: 0.5033
Std Dev: 0.0226
Std Err: 0.0072
p-value: 0.0000

Density

70
60
50
40
30
20
10
0

0.35

0.40

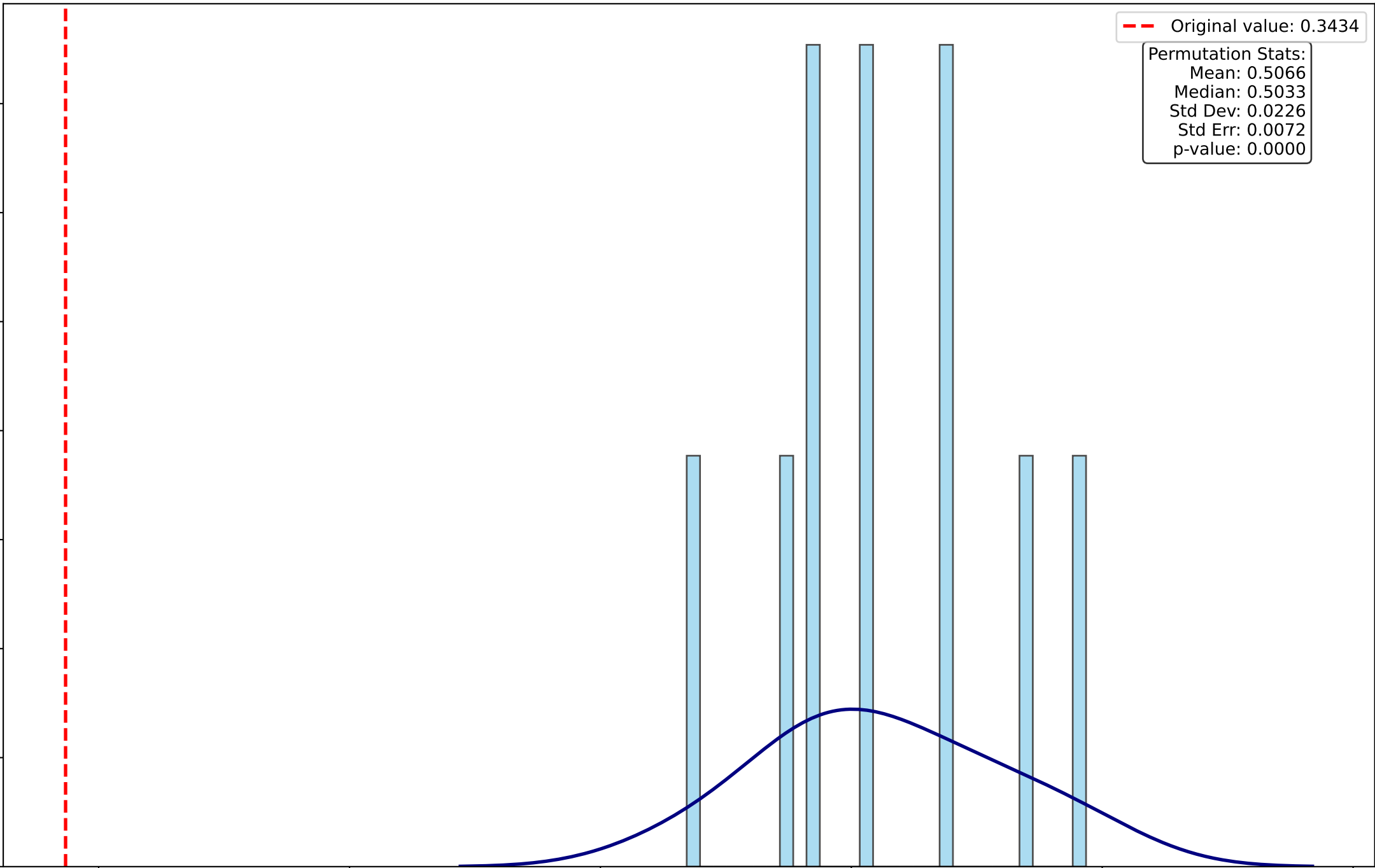
0.45

0.50

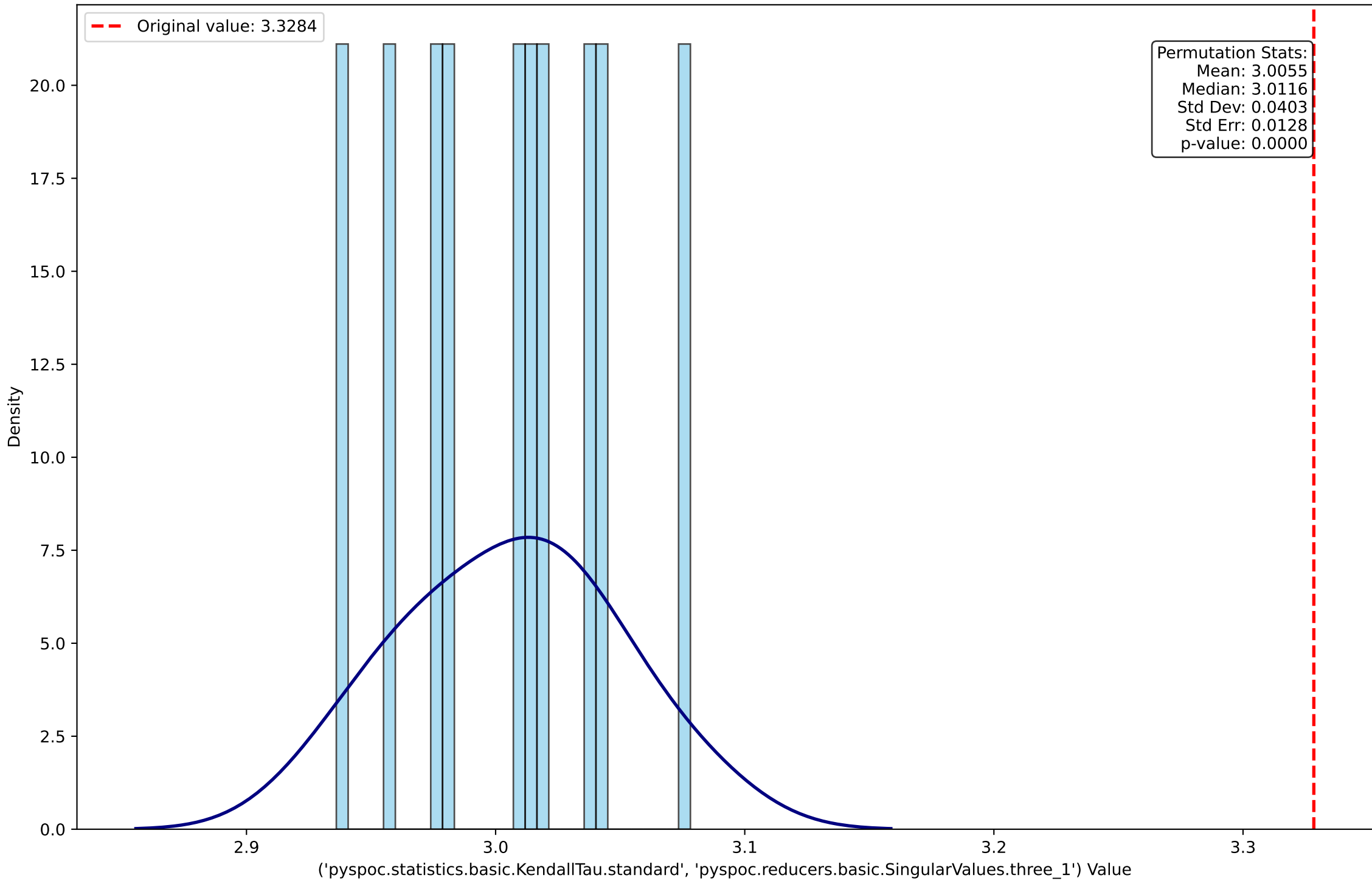
0.55

0.60

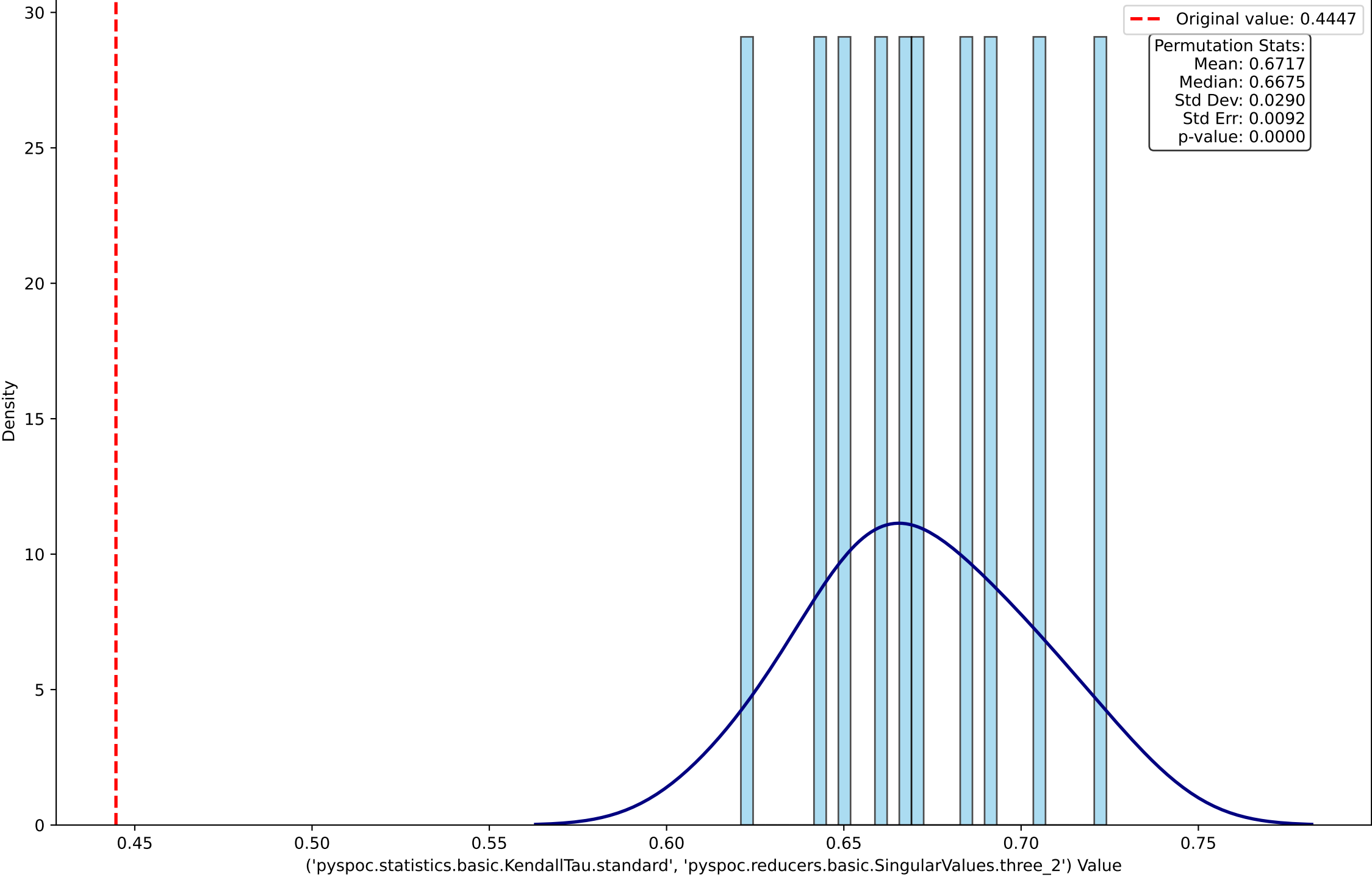
('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_3') Value



Permutation Distribution for ('pypoc.statistics.basic.KendallTau.standard', 'pypoc.reducers.basic.SingularValues.three_1')



Permutation Distribution for ('pypoc.statistics.basic.KendallTau.standard', 'pypoc.reducers.basic.SingularValues.three_2')



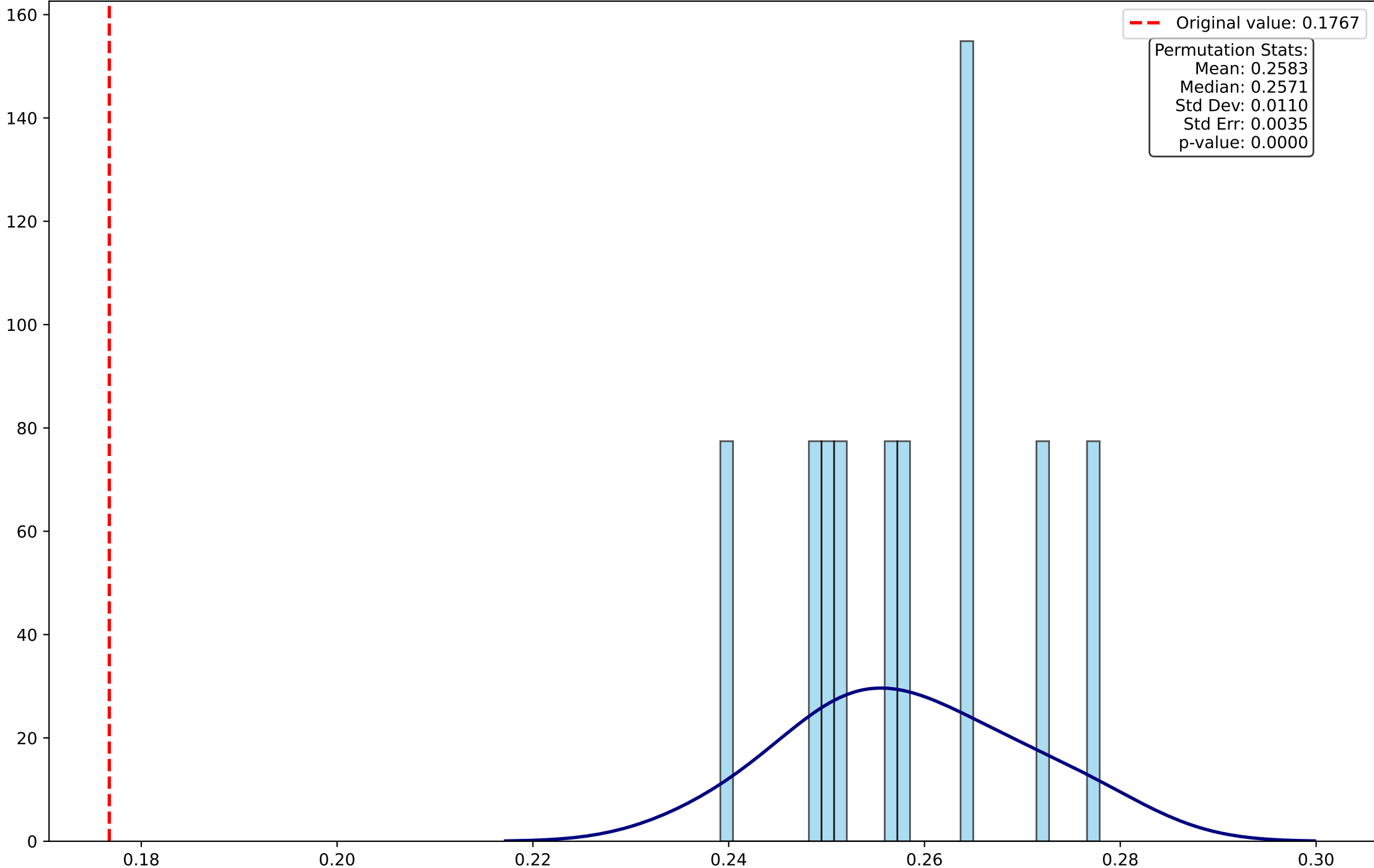
Permutation Distribution for ('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_3')

Original value: 0.1767

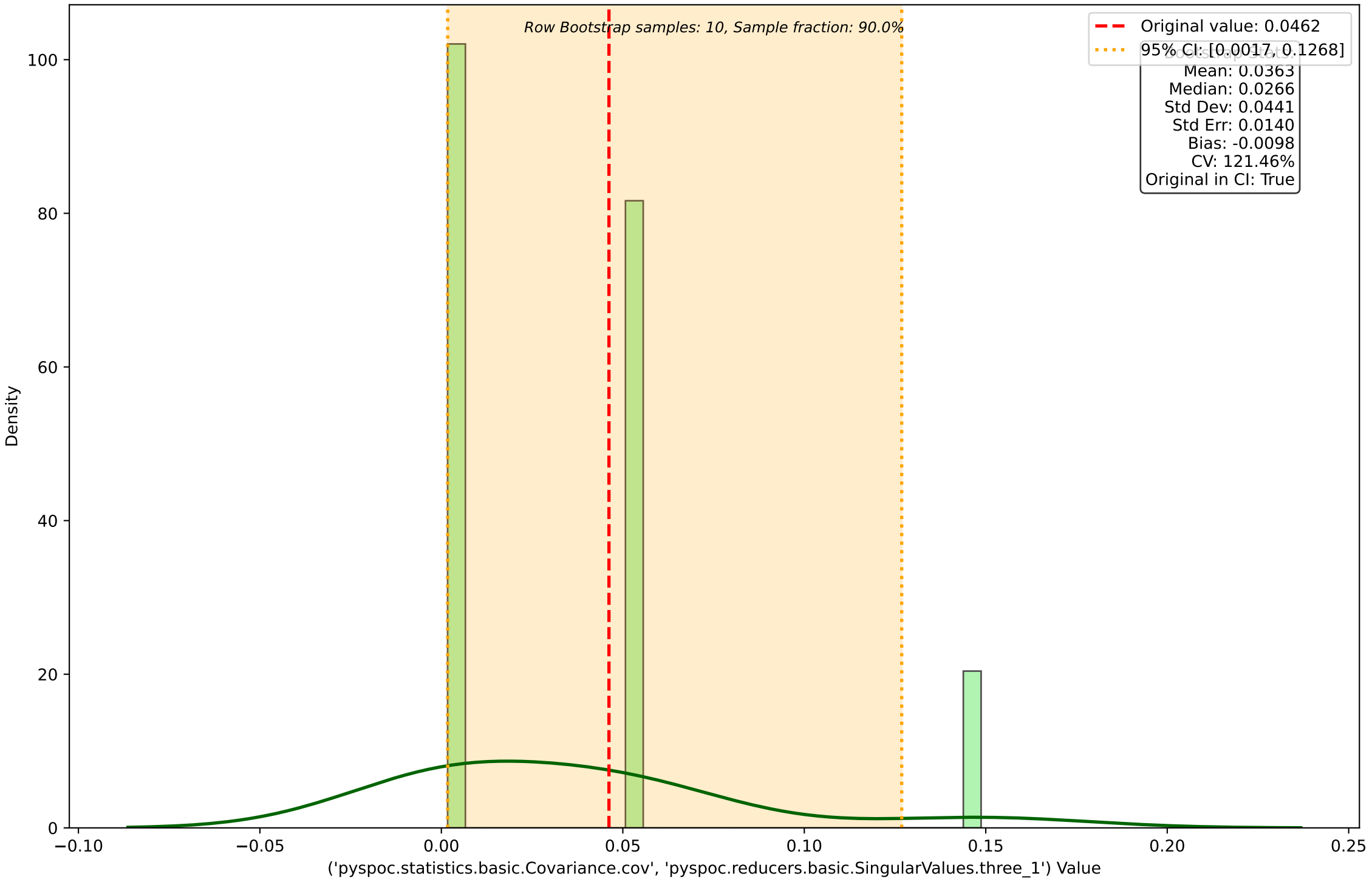
Permutation Stats:
Mean: 0.2583
Median: 0.2571
Std Dev: 0.0110
Std Err: 0.0035
p-value: 0.0000

Density

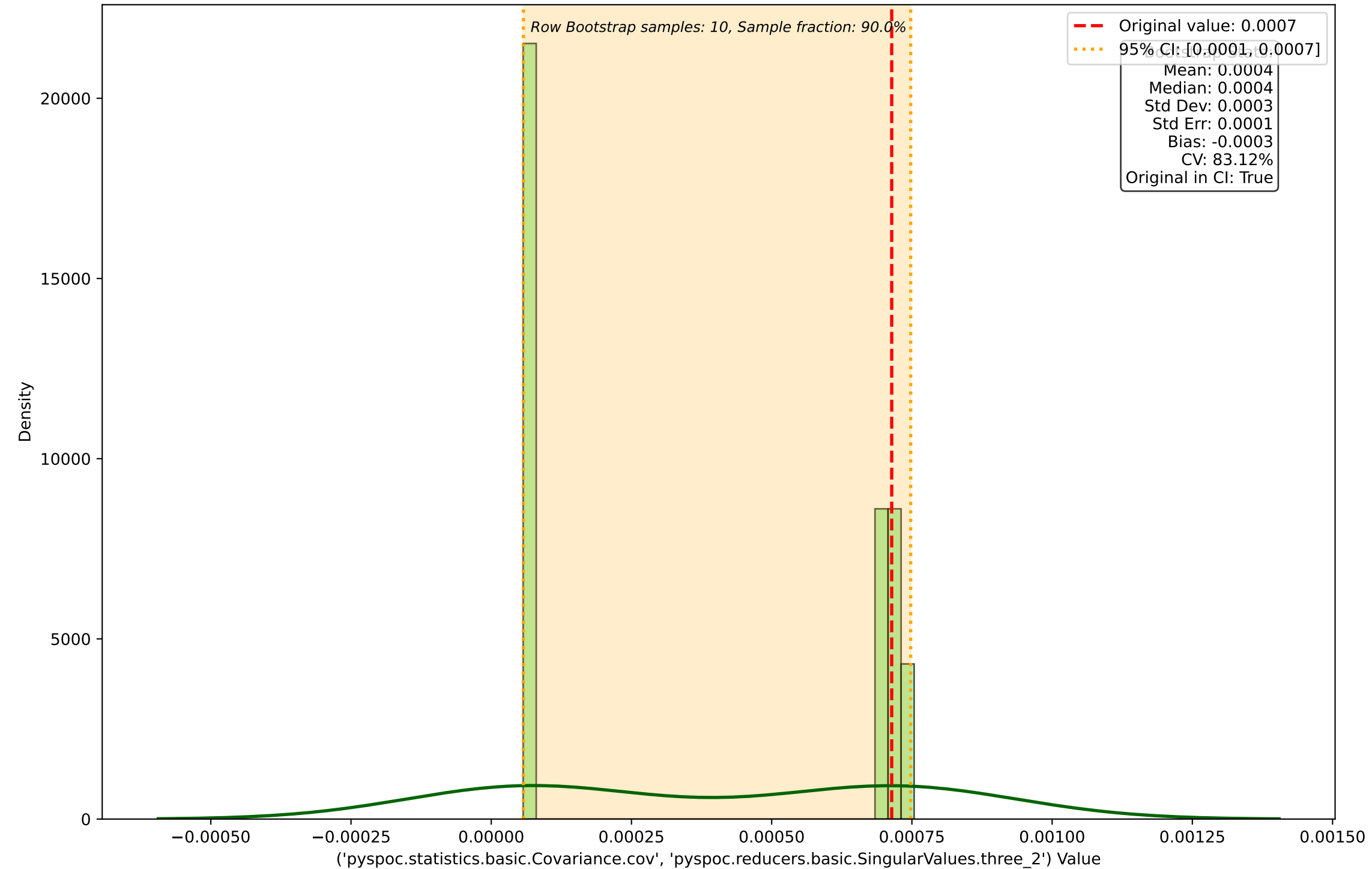
('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_3') Value



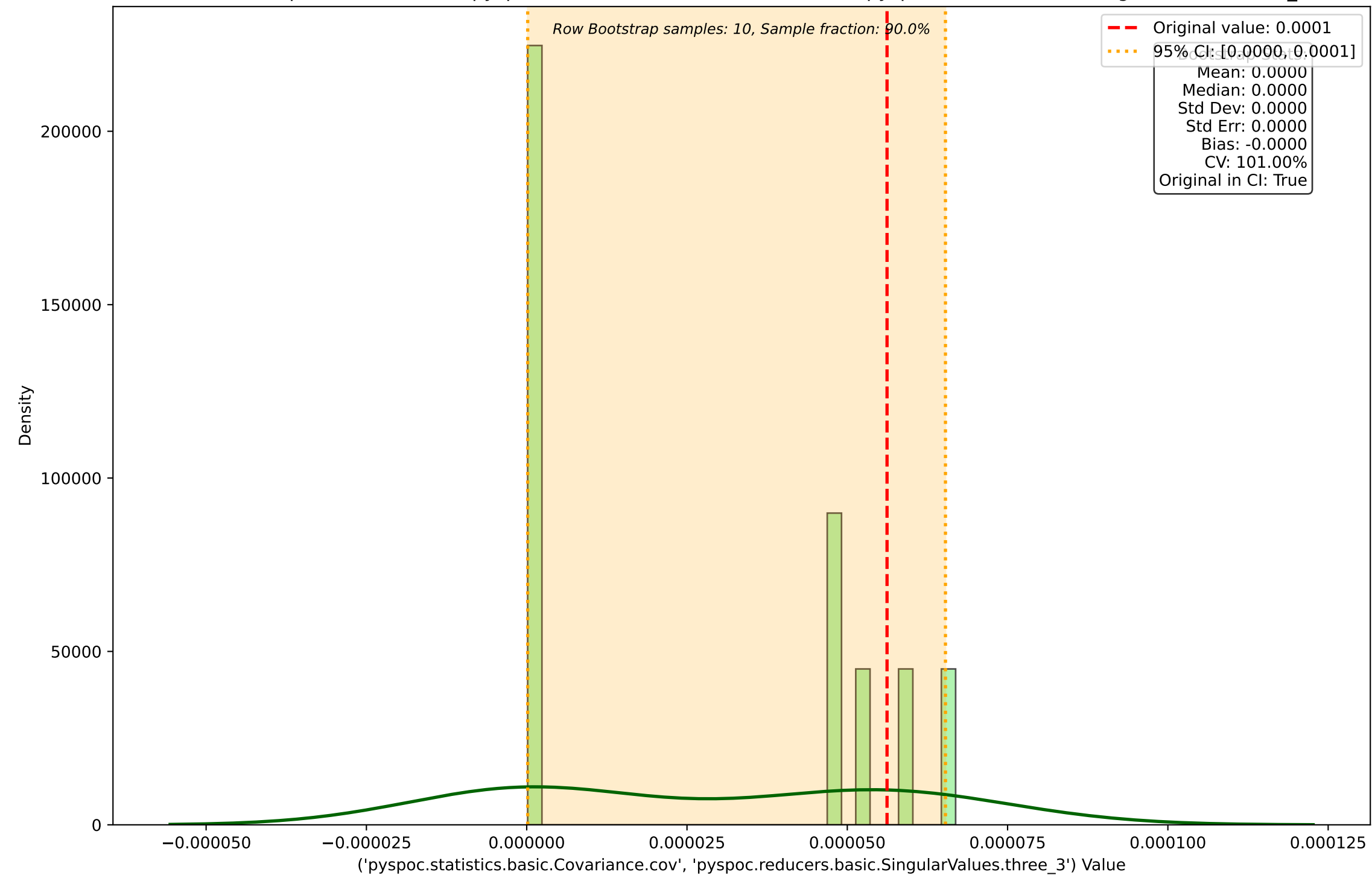
Row Bootstrap Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_1')



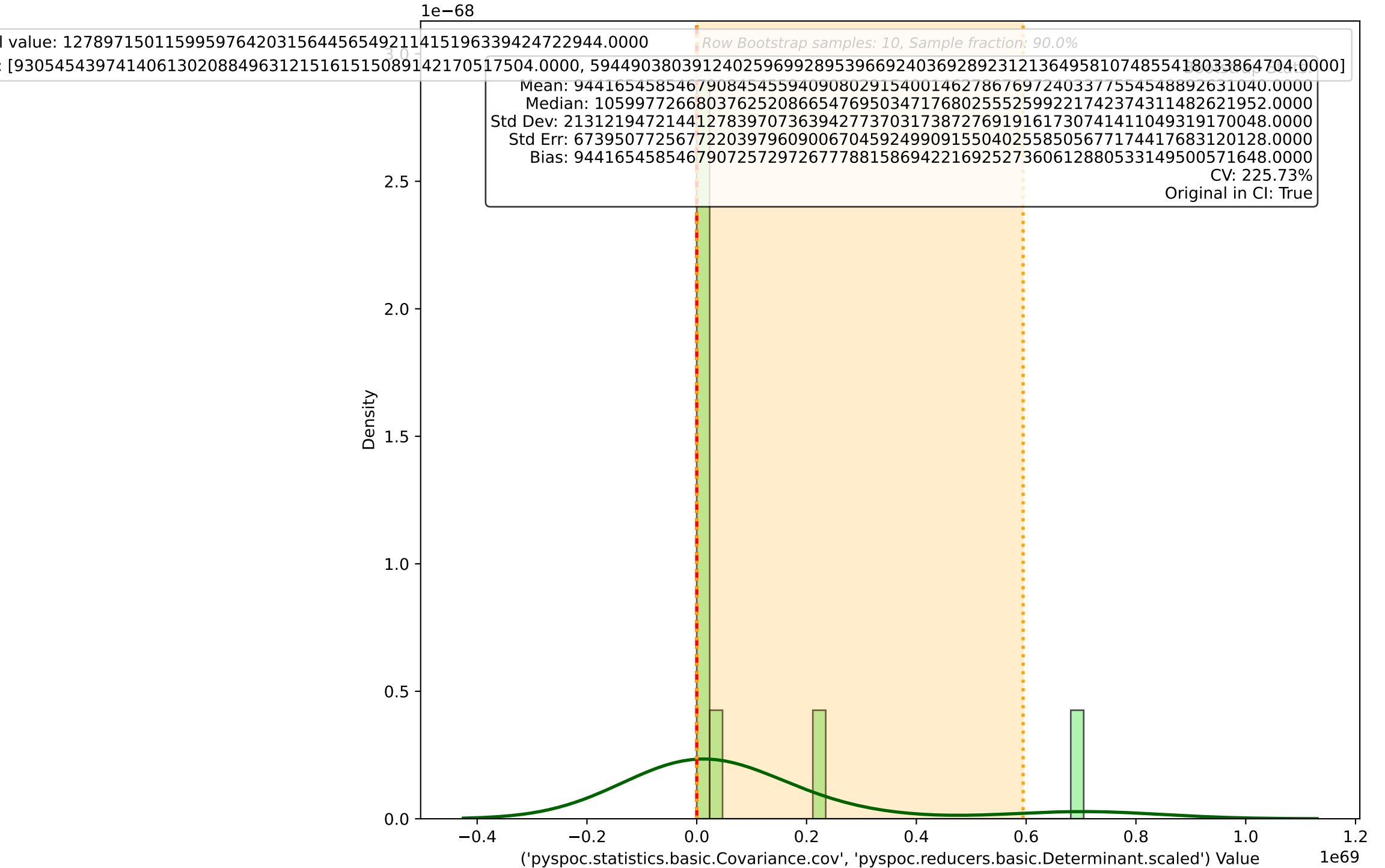
Row Bootstrap Distribution for ('pypoc.statistics.basic.Covariance.cov', 'pypoc.reducers.basic.SingularValues.three_2')



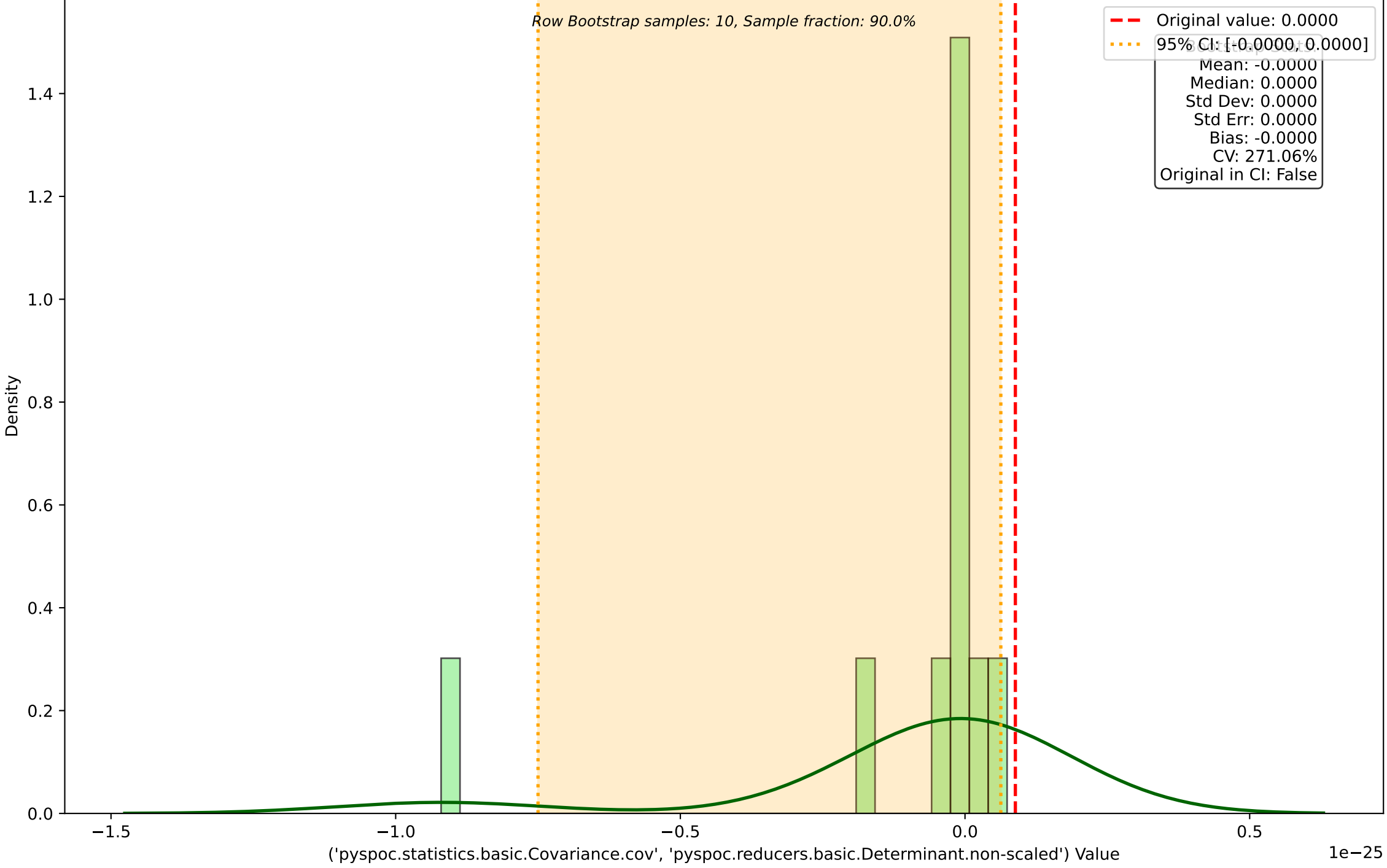
Row Bootstrap Distribution for ('pypoc.statistics.basic.Covariance.cov', 'pypoc.reducers.basic.SingularValues.three_3')



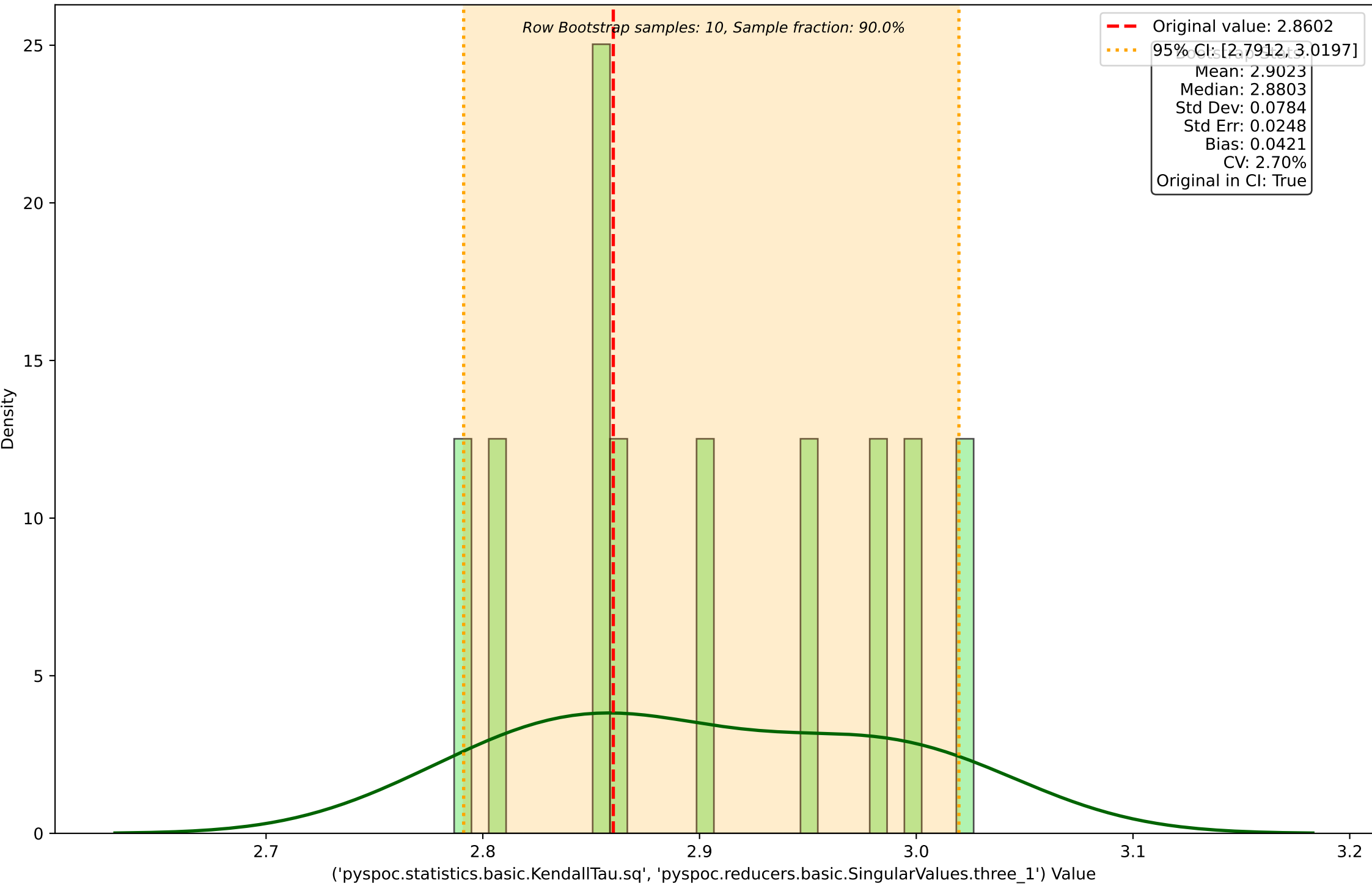
Row Bootstrap Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.Determinant.scaled')



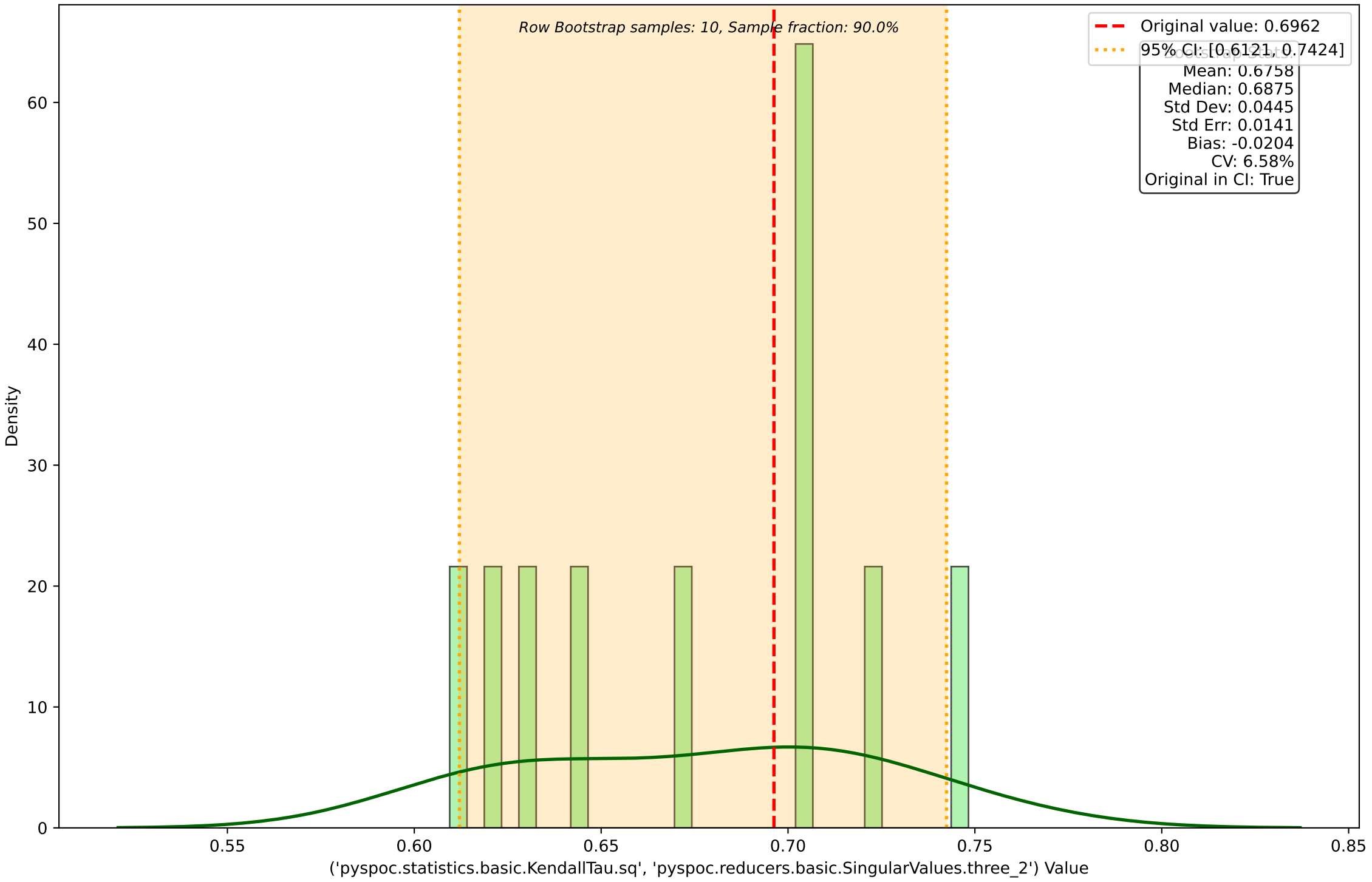
1e26 Row Bootstrap Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.Determinant.non-scaled')



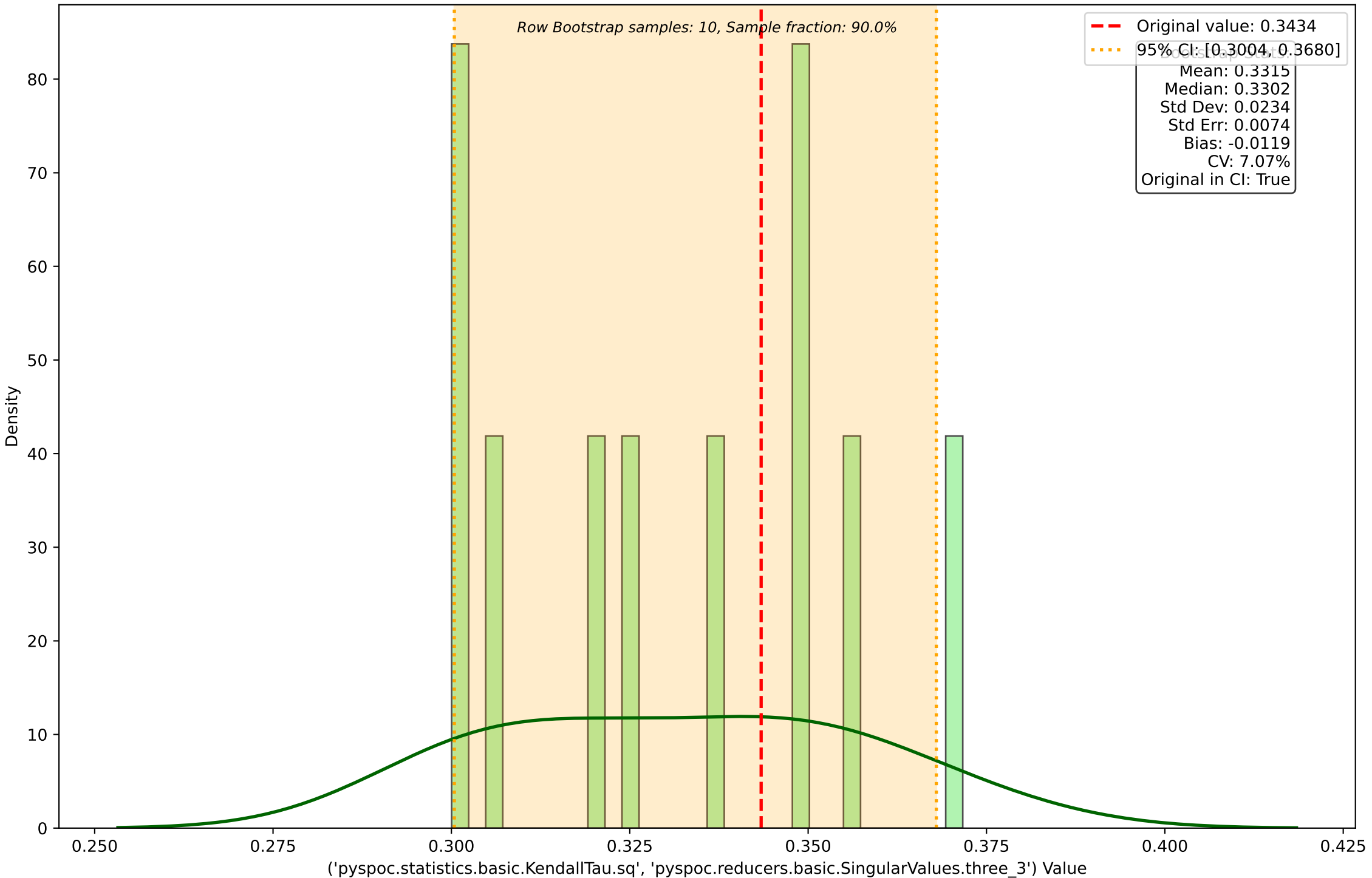
Row Bootstrap Distribution for ('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_1')



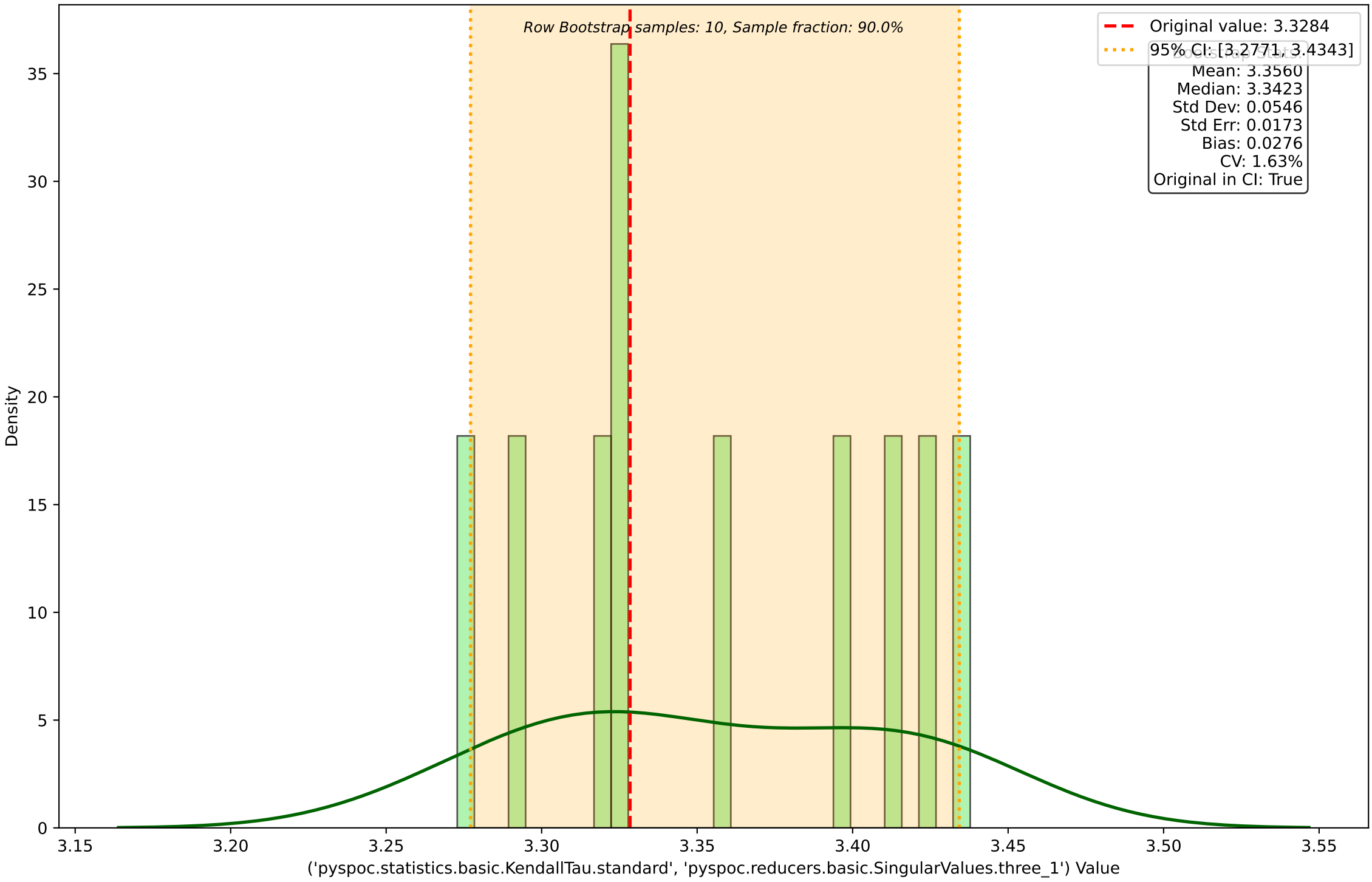
Row Bootstrap Distribution for ('pypoc.statistics.basic.KendallTau.sq', 'pypoc.reducers.basic.SingularValues.three_2')



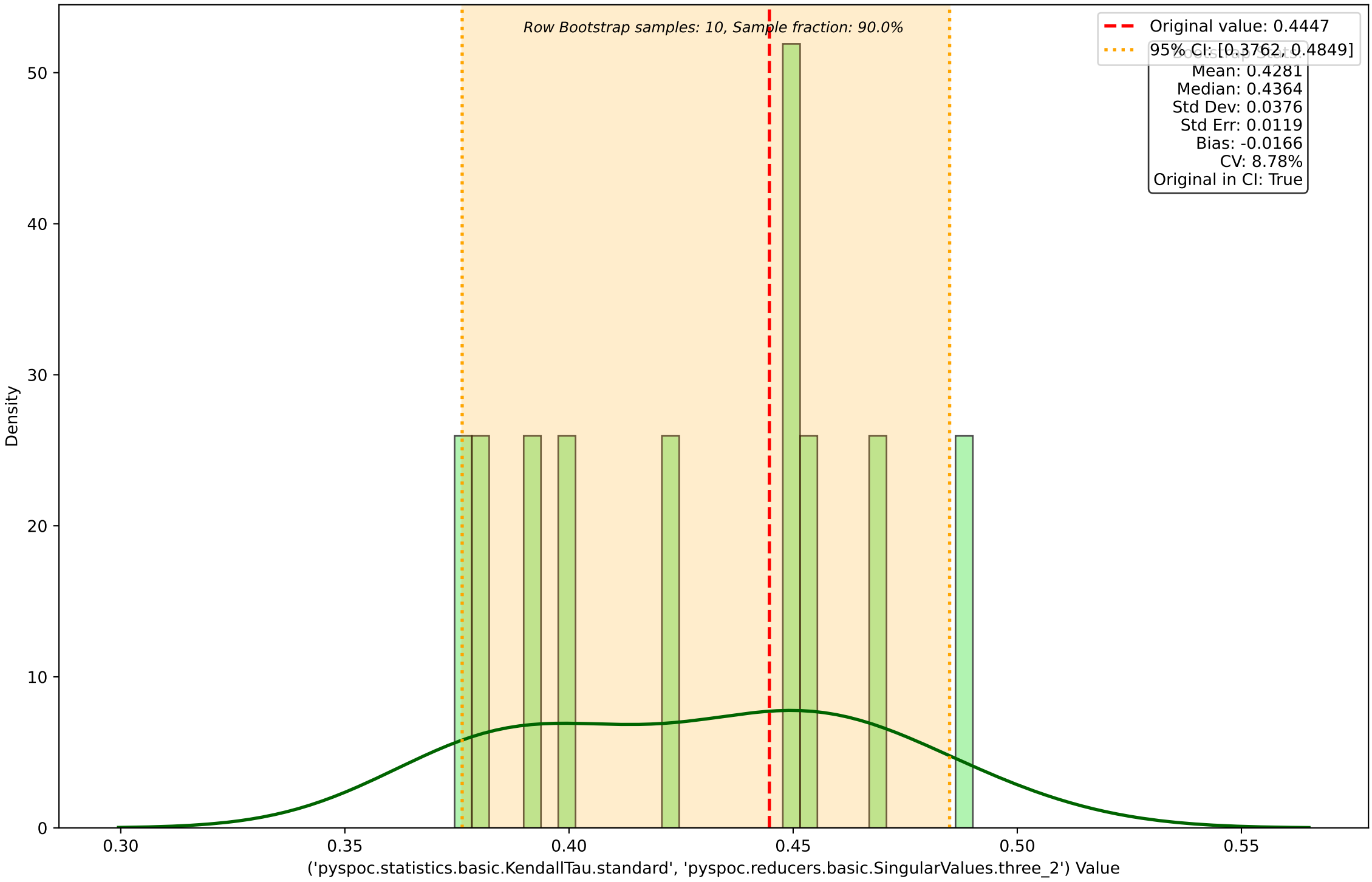
Row Bootstrap Distribution for ('pypoc.statistics.basic.KendallTau.sq', 'pypoc.reducers.basic.SingularValues.three_3')



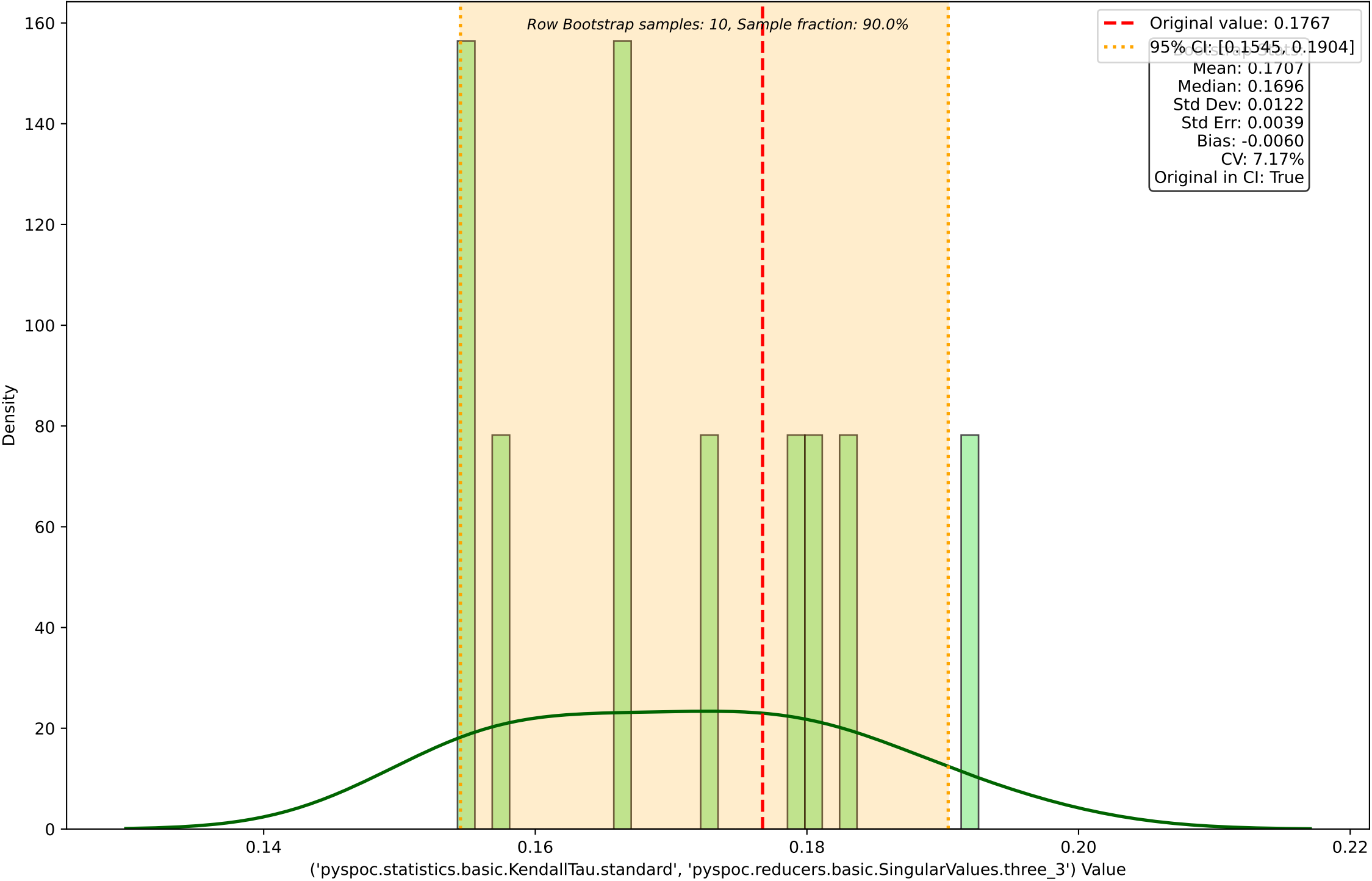
Row Bootstrap Distribution for ('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_1')



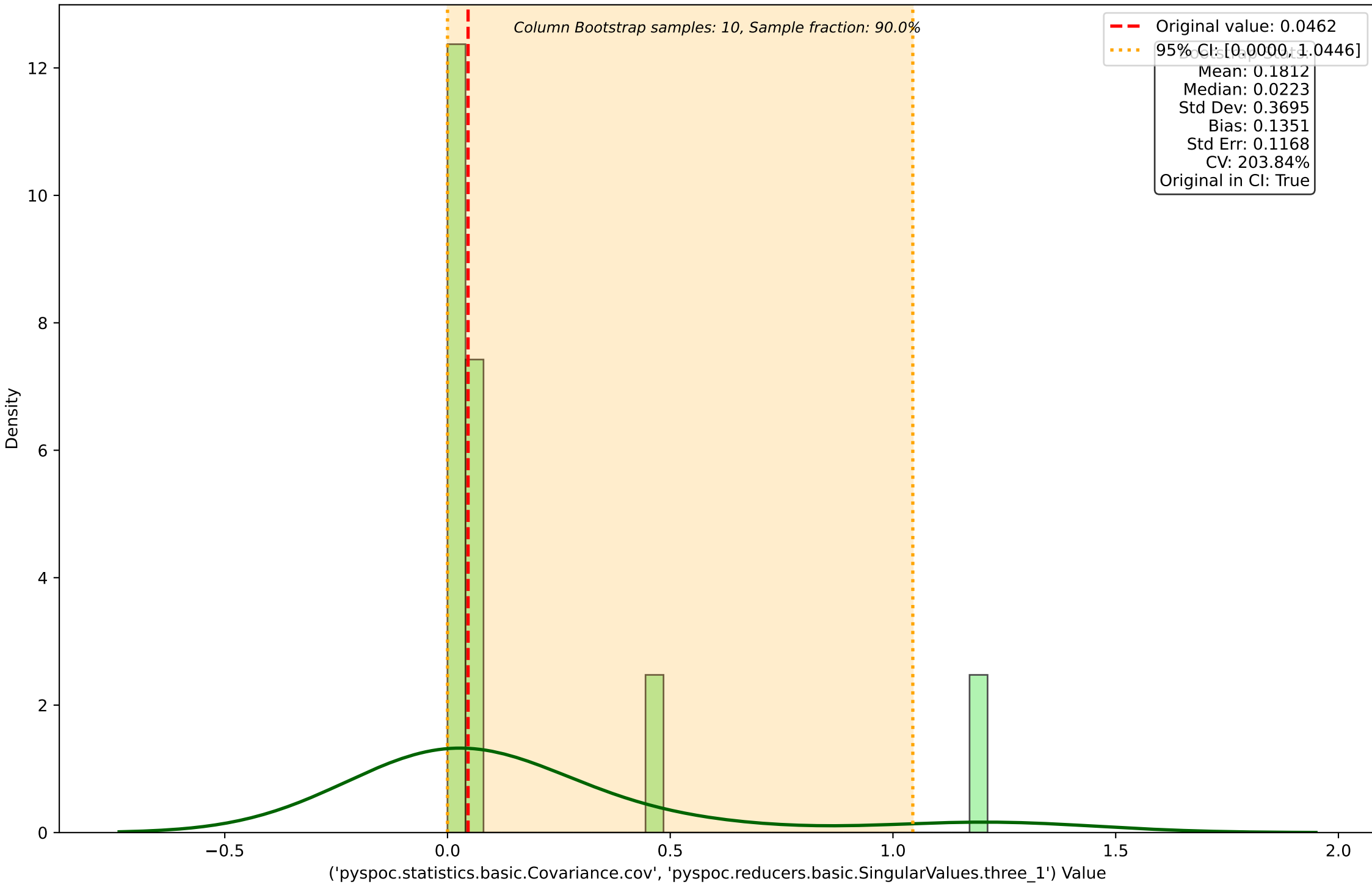
Row Bootstrap Distribution for ('pypoc.statistics.basic.KendallTau.standard', 'pypoc.reducers.basic.SingularValues.three_2')



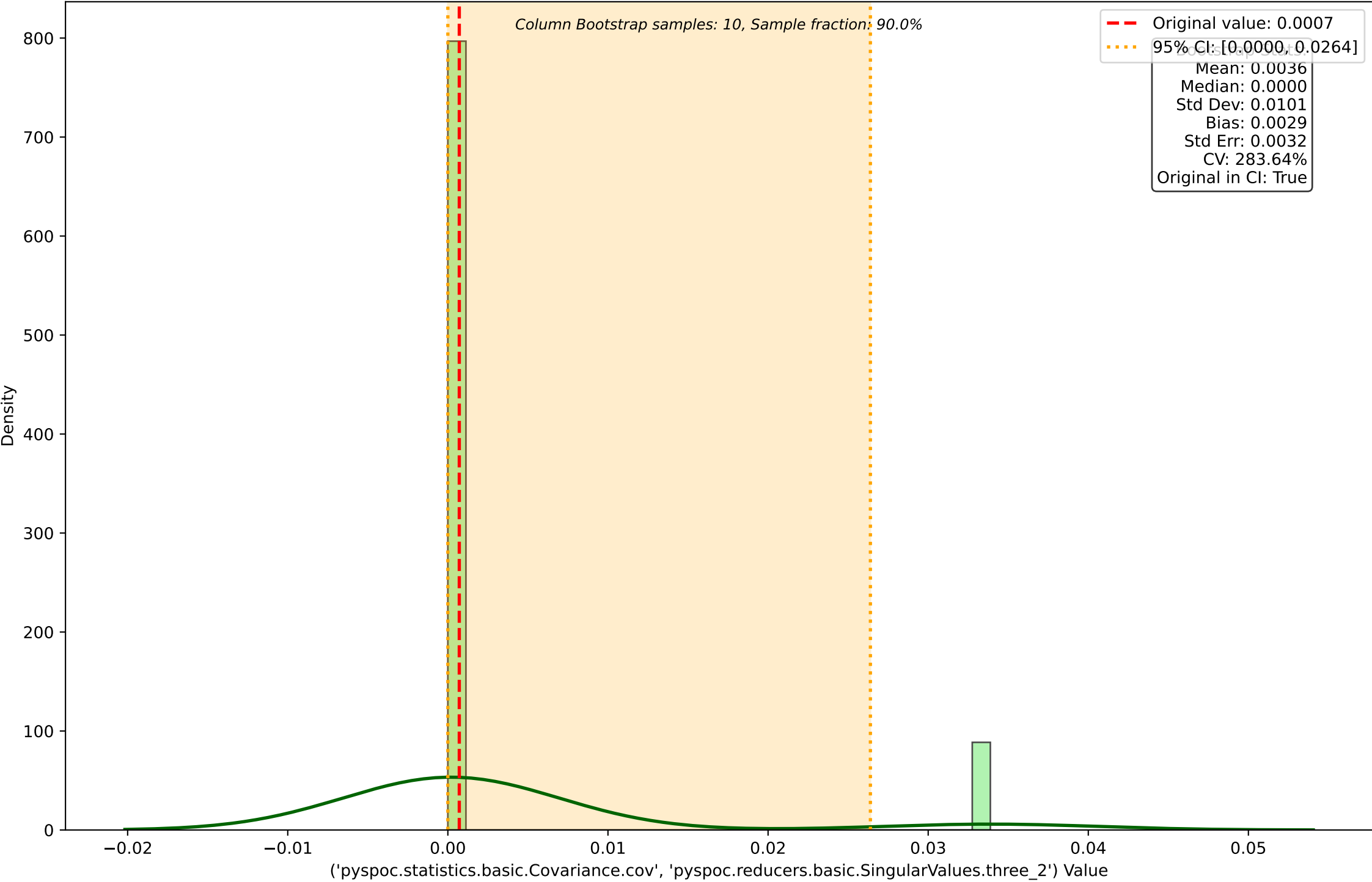
Row Bootstrap Distribution for ('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_3')



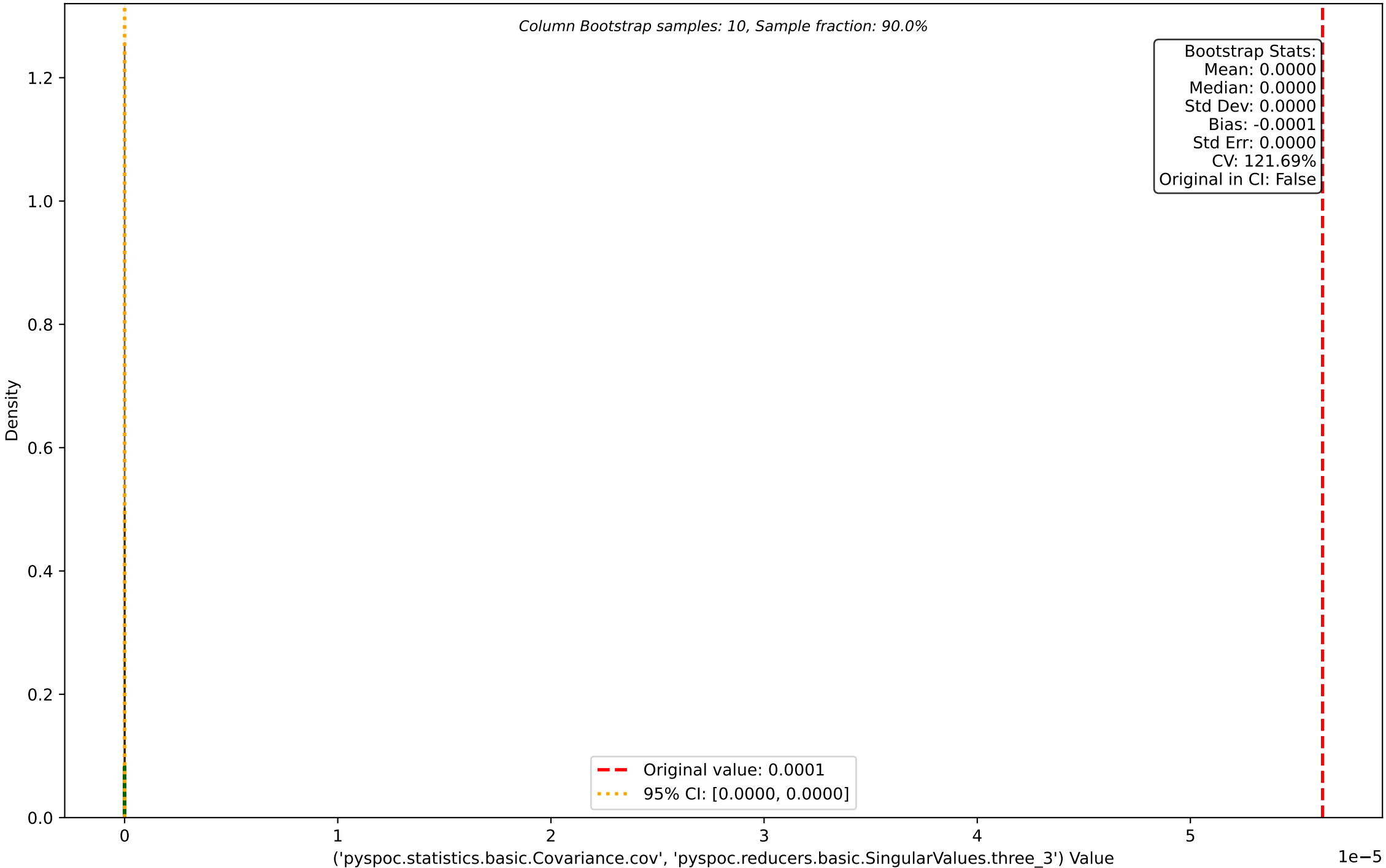
Column Bootstrap Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_1')



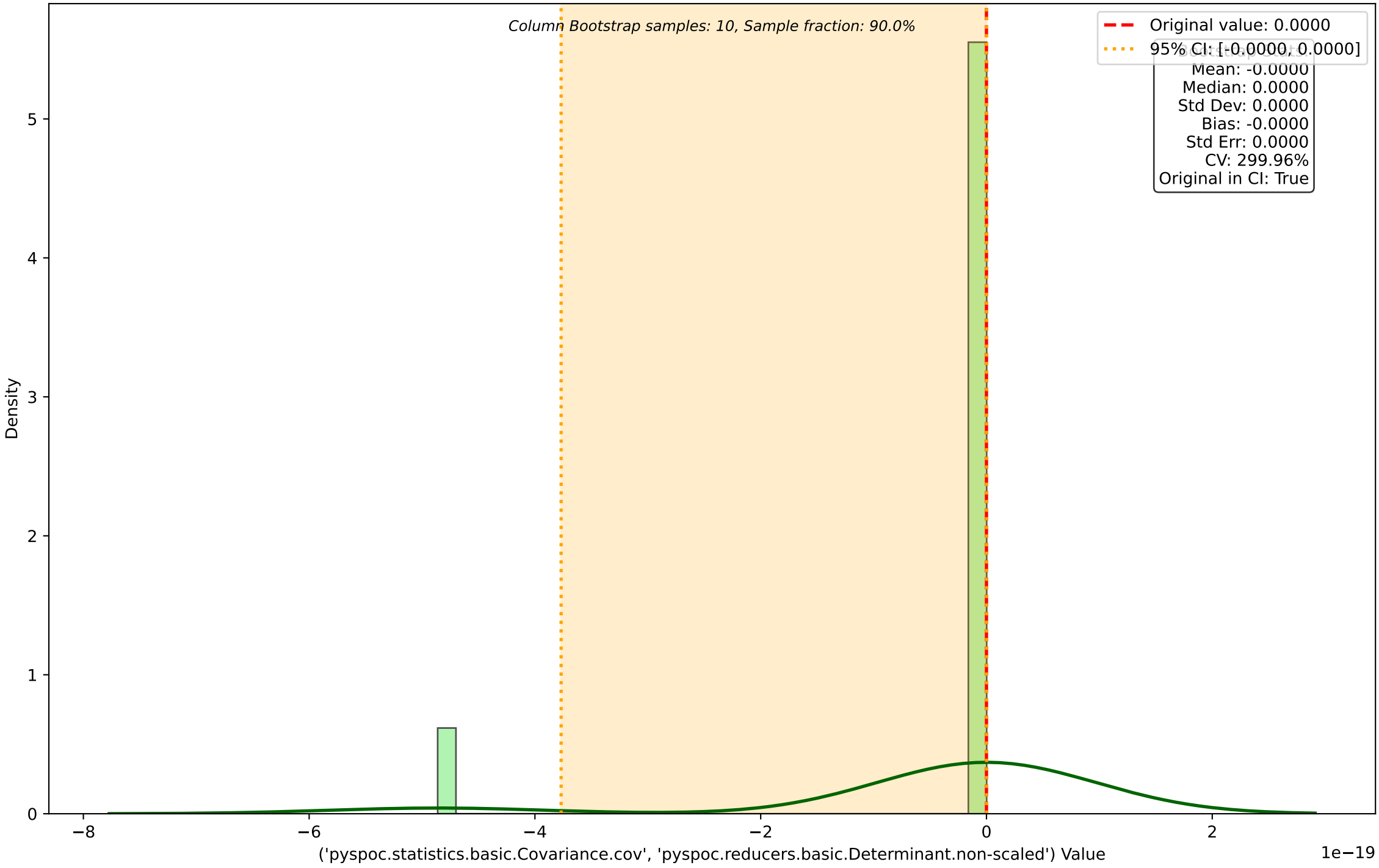
Column Bootstrap Distribution for ('pypoc.statistics.basic.Covariance.cov', 'pypoc.reducers.basic.SingularValues.three_2')



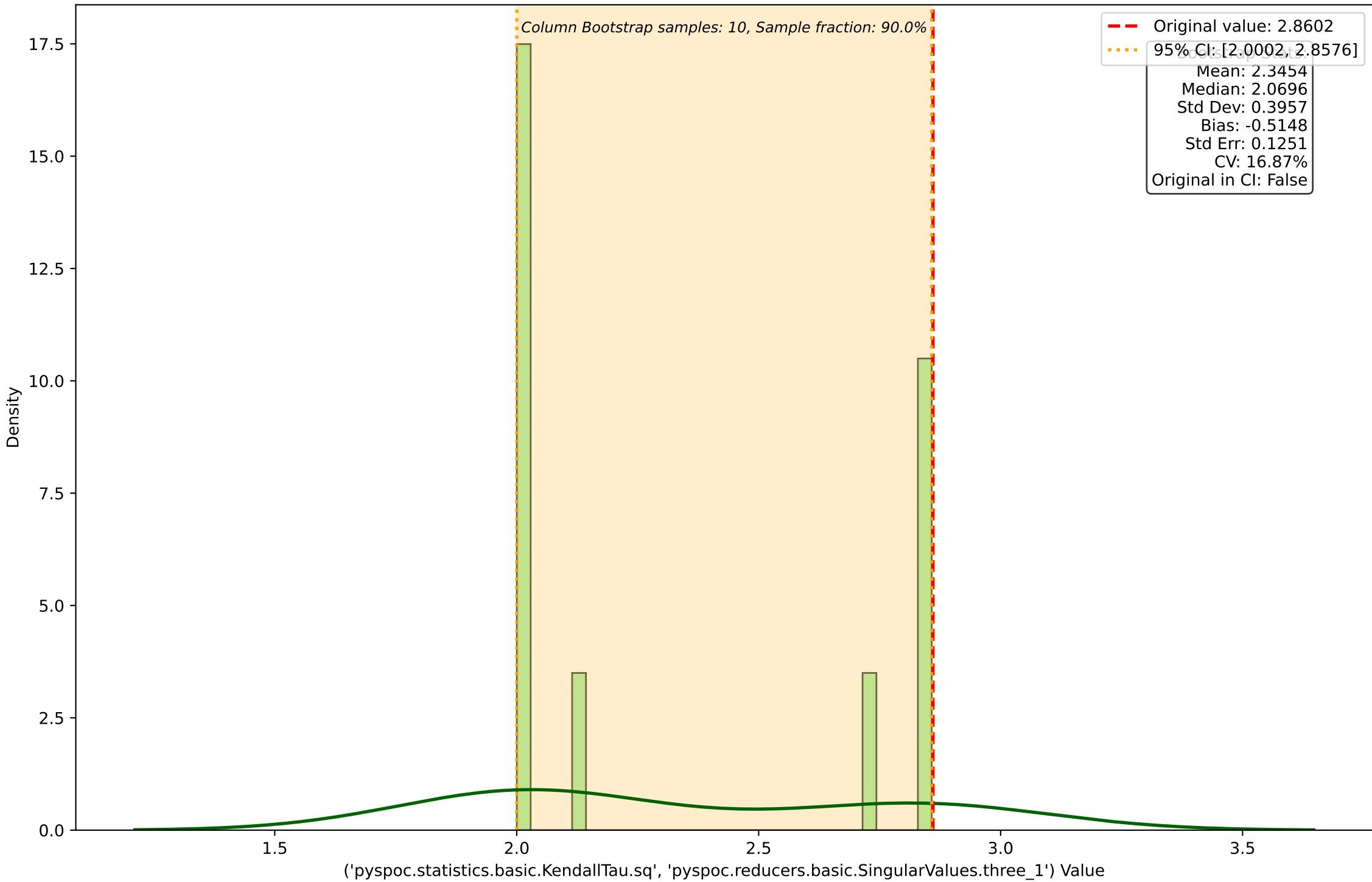
1e18 Column Bootstrap Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_3')



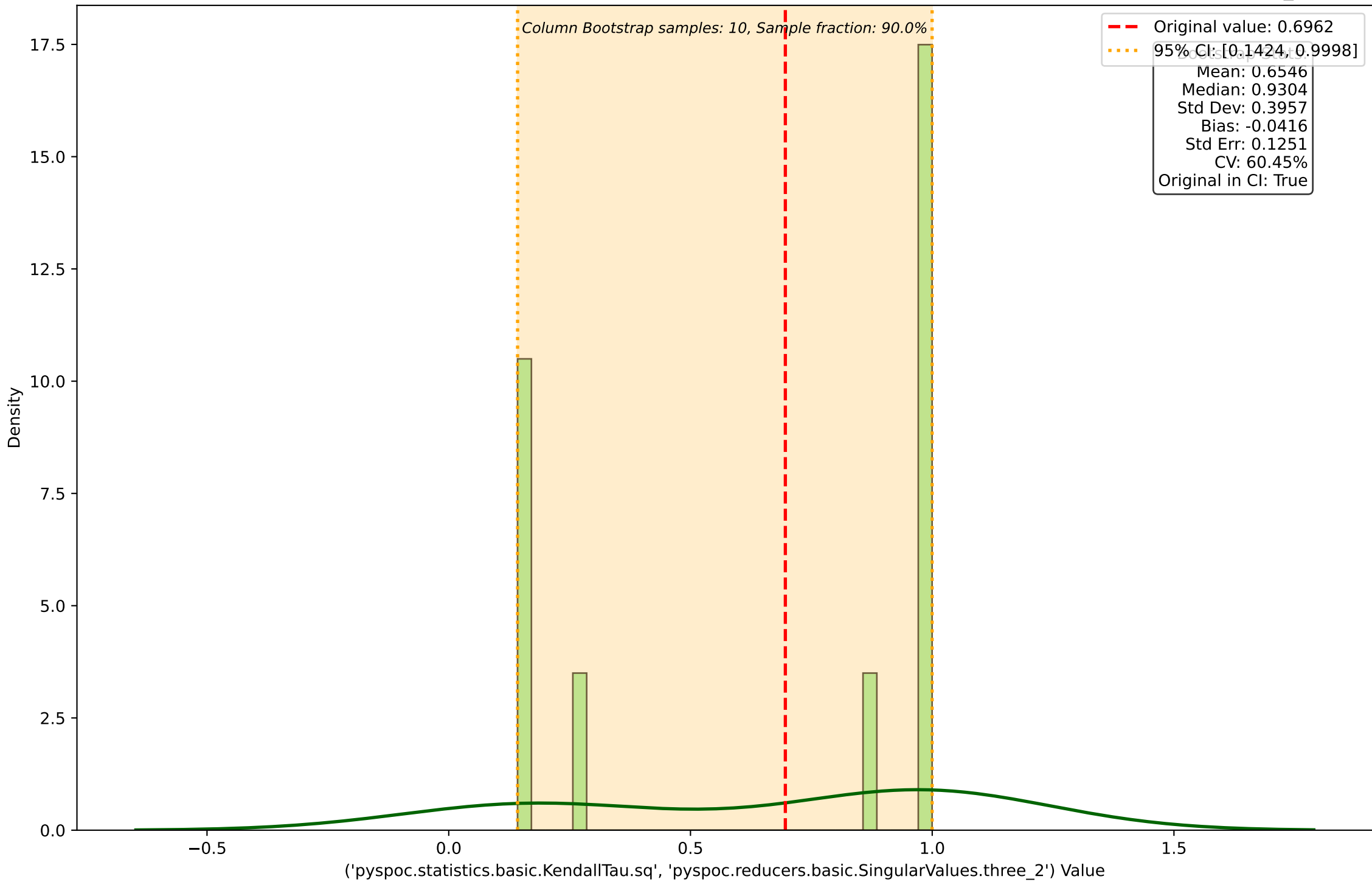
1e19 Column Bootstrap Distribution for ('pypoc.statistics.basic.Covariance.cov', 'pypoc.reducers.basic.Determinant.non-scaled')

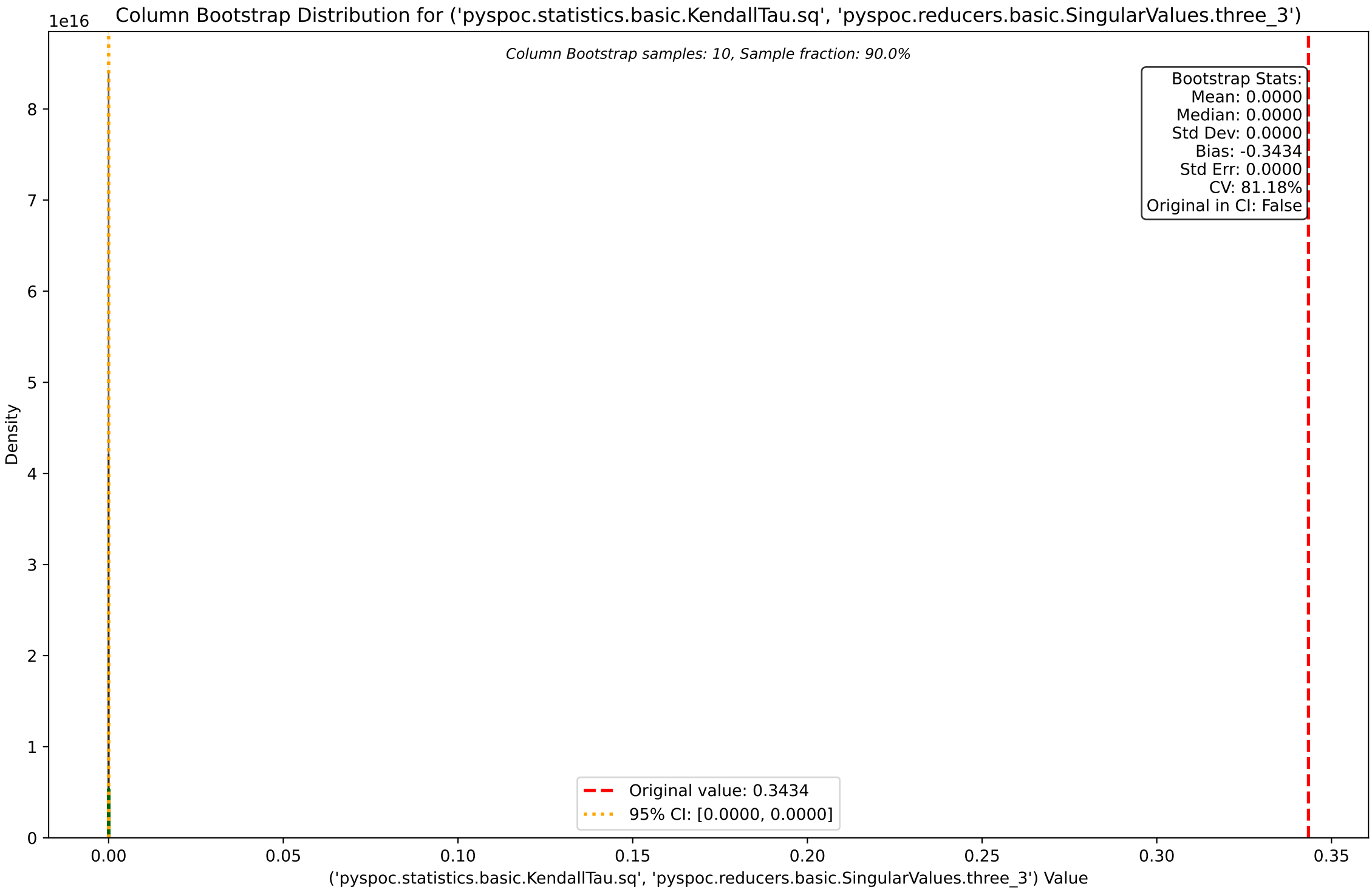


Column Bootstrap Distribution for ('pypoc.statistics.basic.KendallTau.sq', 'pypoc.reducers.basic.SingularValues.three_1')

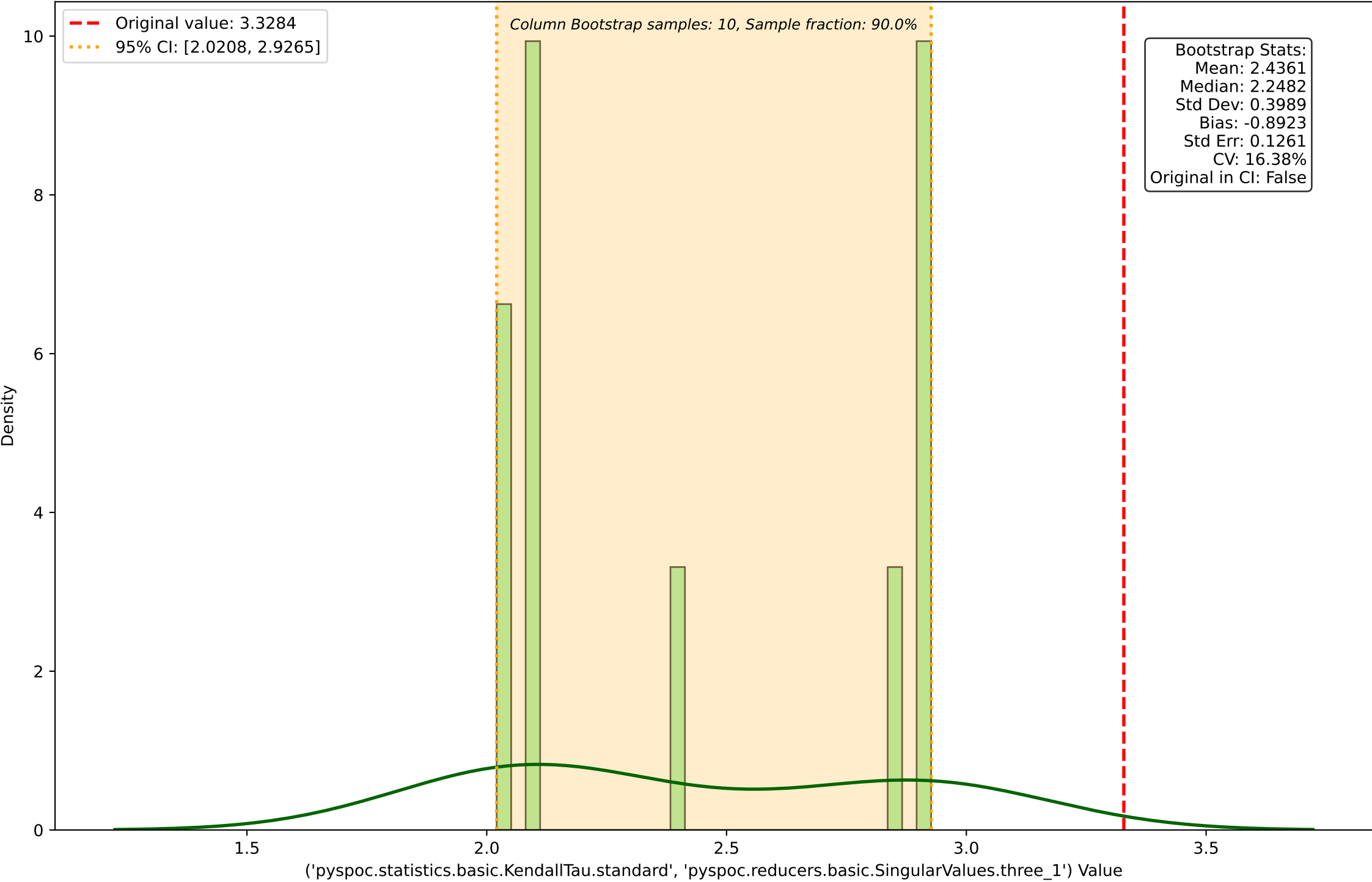


Column Bootstrap Distribution for ('pypoc.statistics.basic.KendallTau.sq', 'pypoc.reducers.basic.SingularValues.three_2')

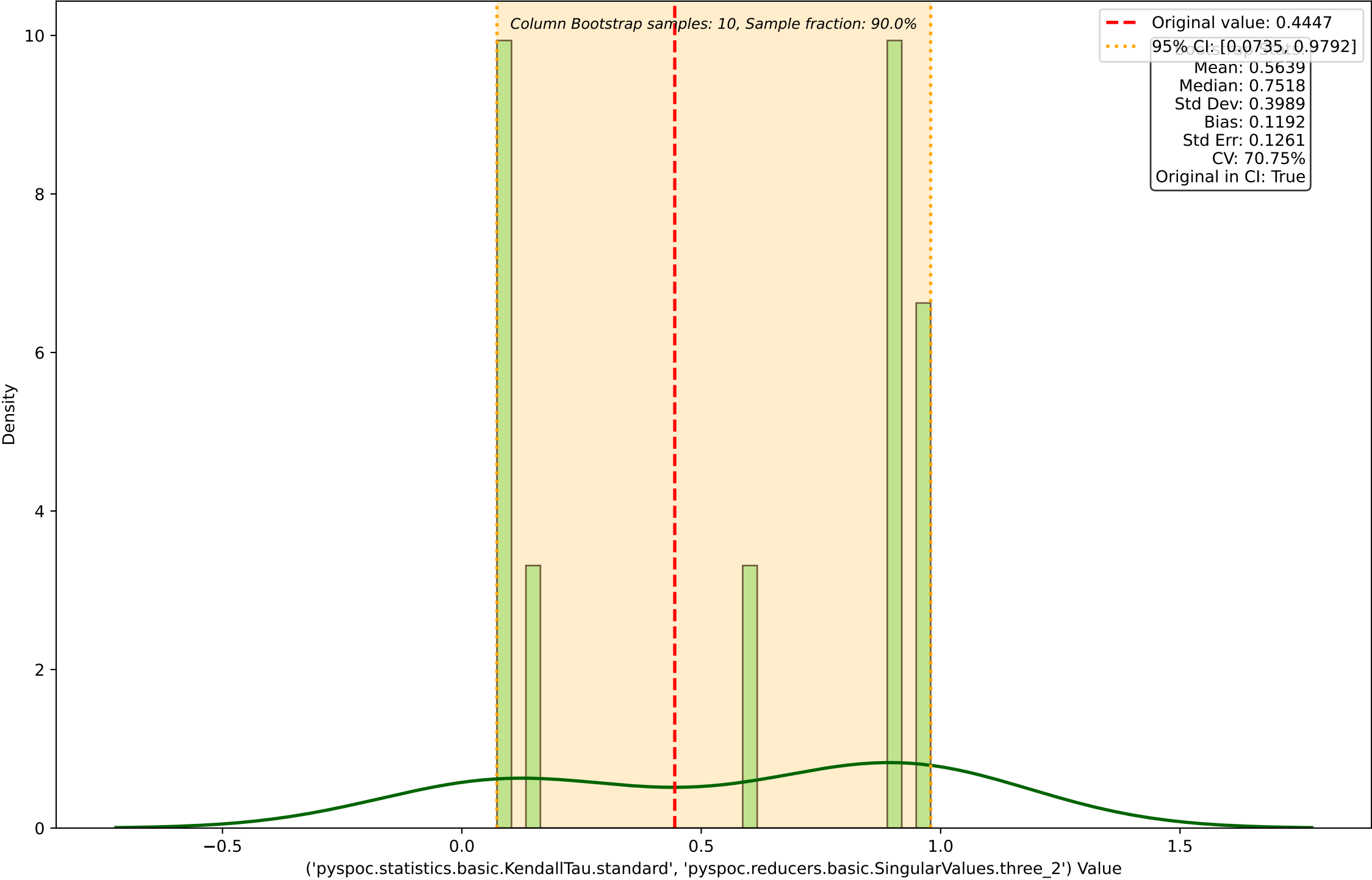




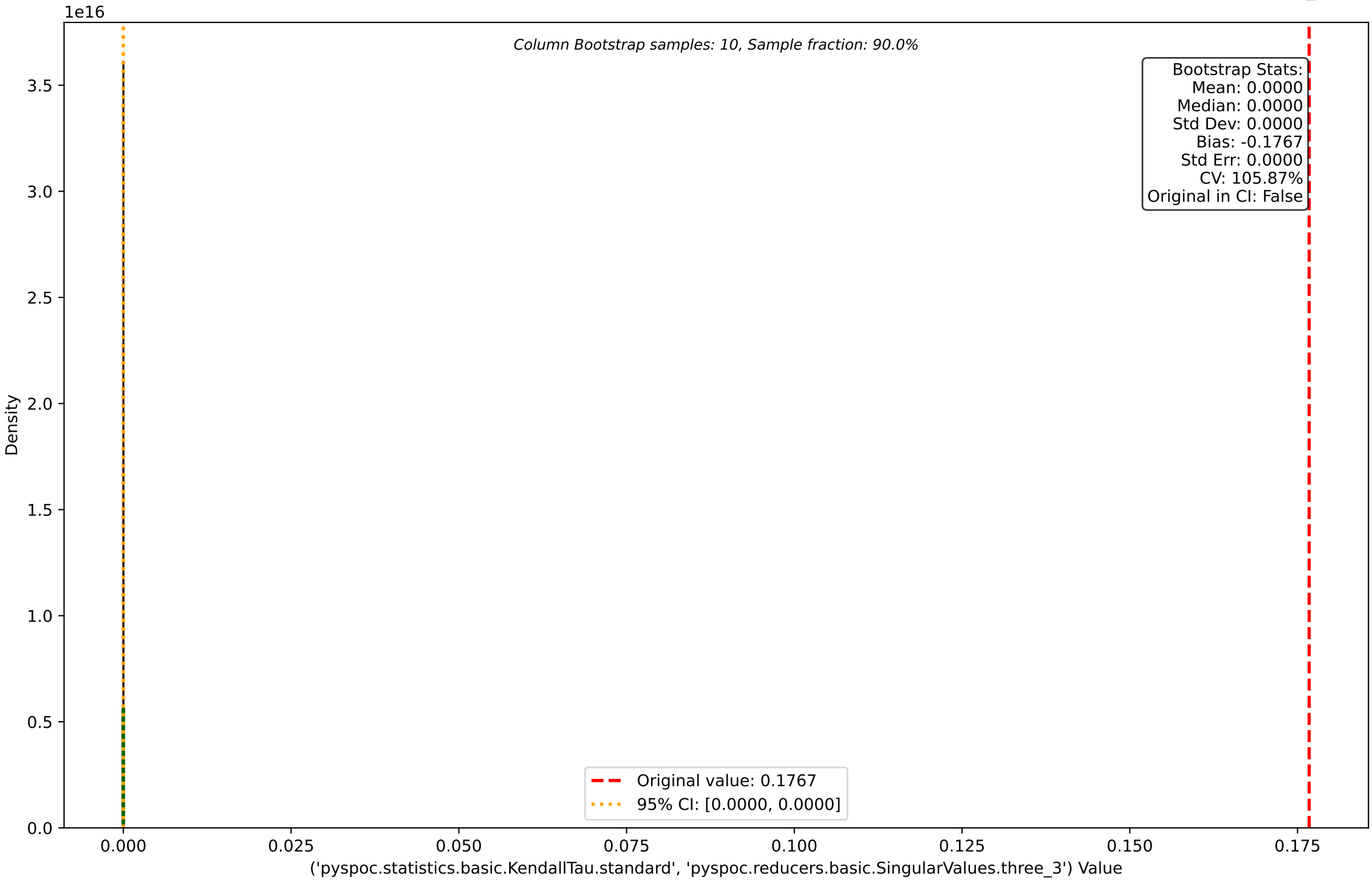
Column Bootstrap Distribution for ('pypoc.statistics.basic.KendallTau.standard', 'pypoc.reducers.basic.SingularValues.three_1')



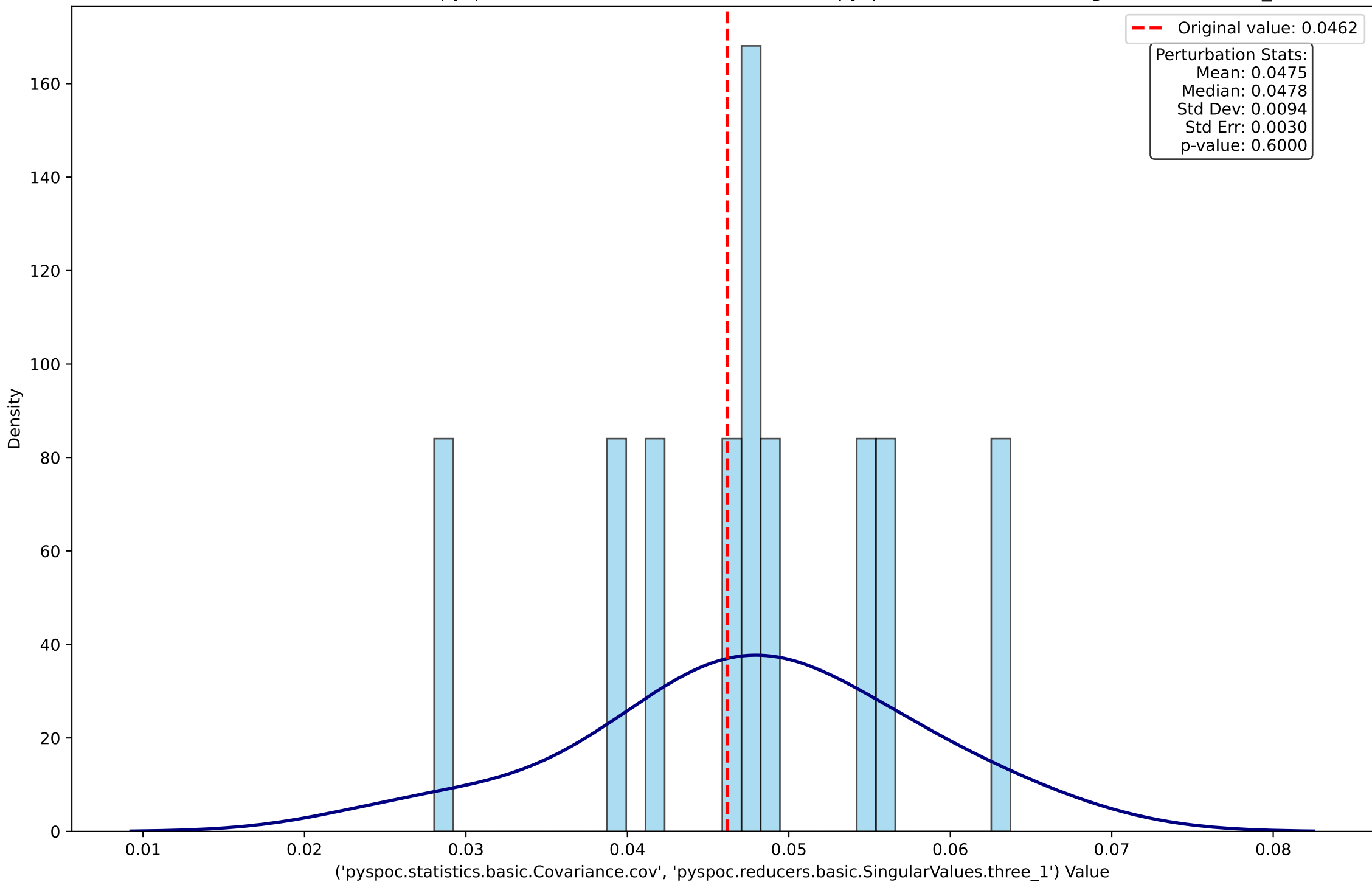
Column Bootstrap Distribution for ('pypoc.statistics.basic.KendallTau.standard', 'pypoc.reducers.basic.SingularValues.three_2')



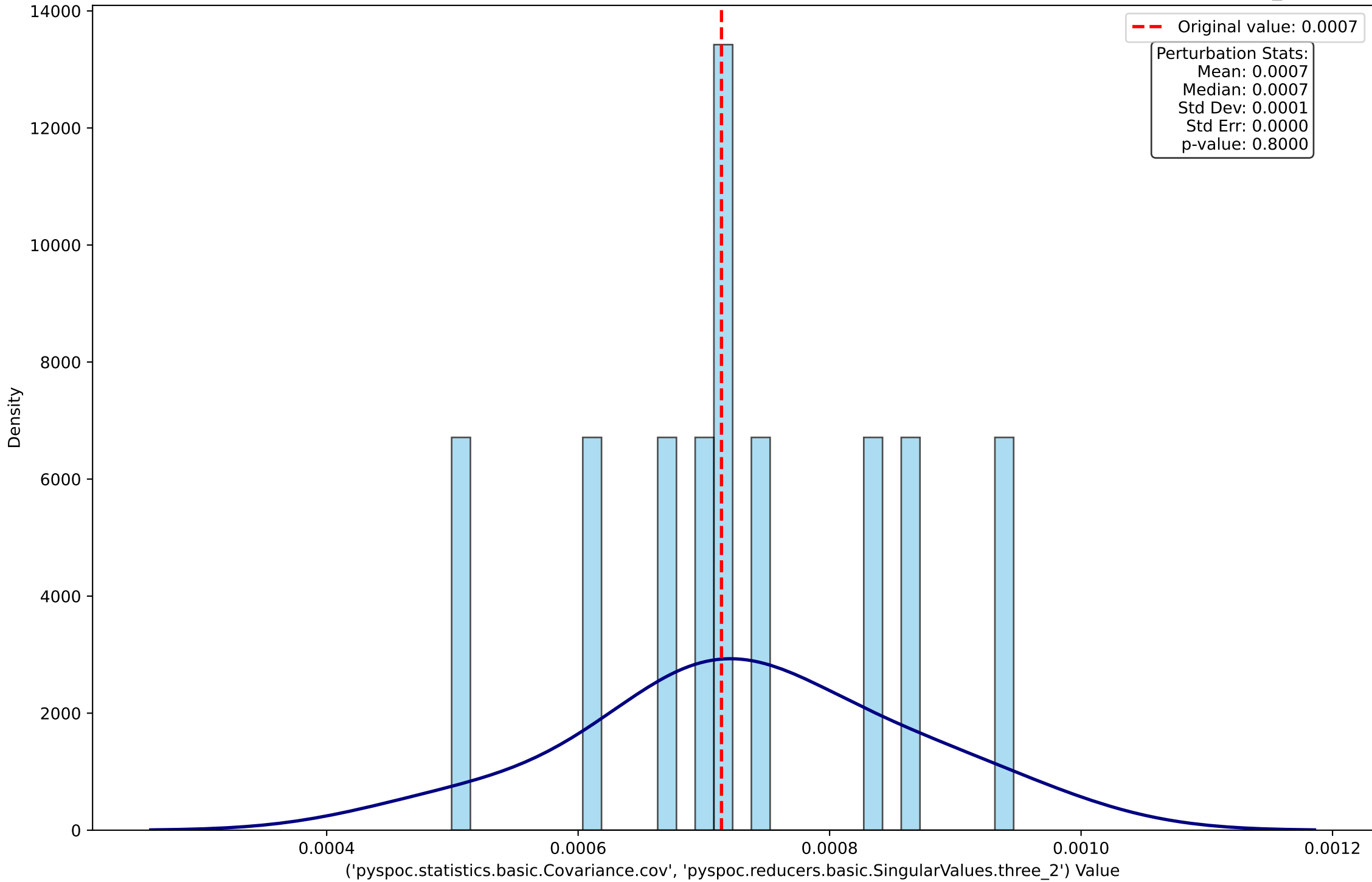
Column Bootstrap Distribution for ('pypoc.statistics.basic.KendallTau.standard', 'pypoc.reducers.basic.SingularValues.three_3')



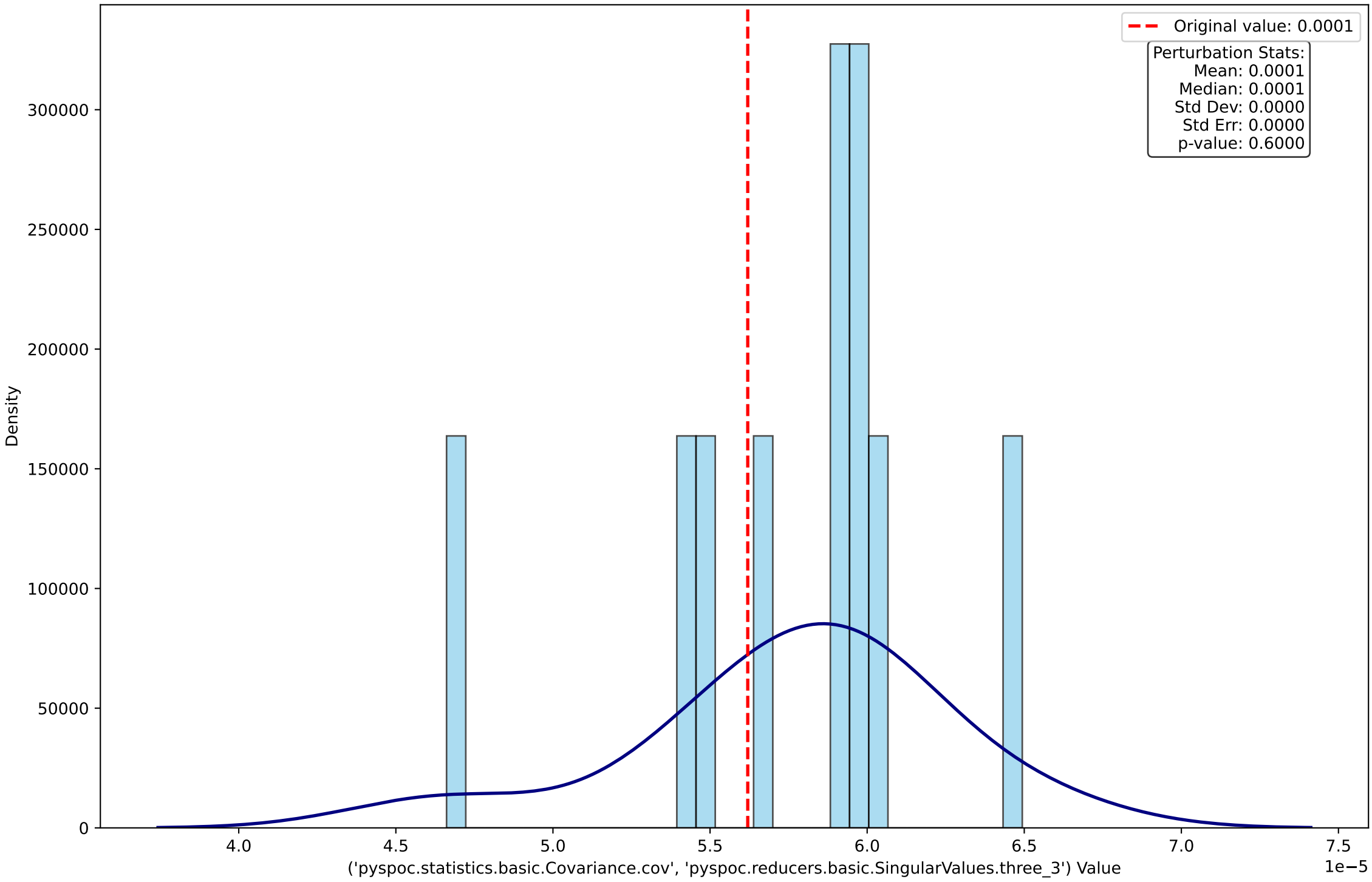
Perturbation Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_1')



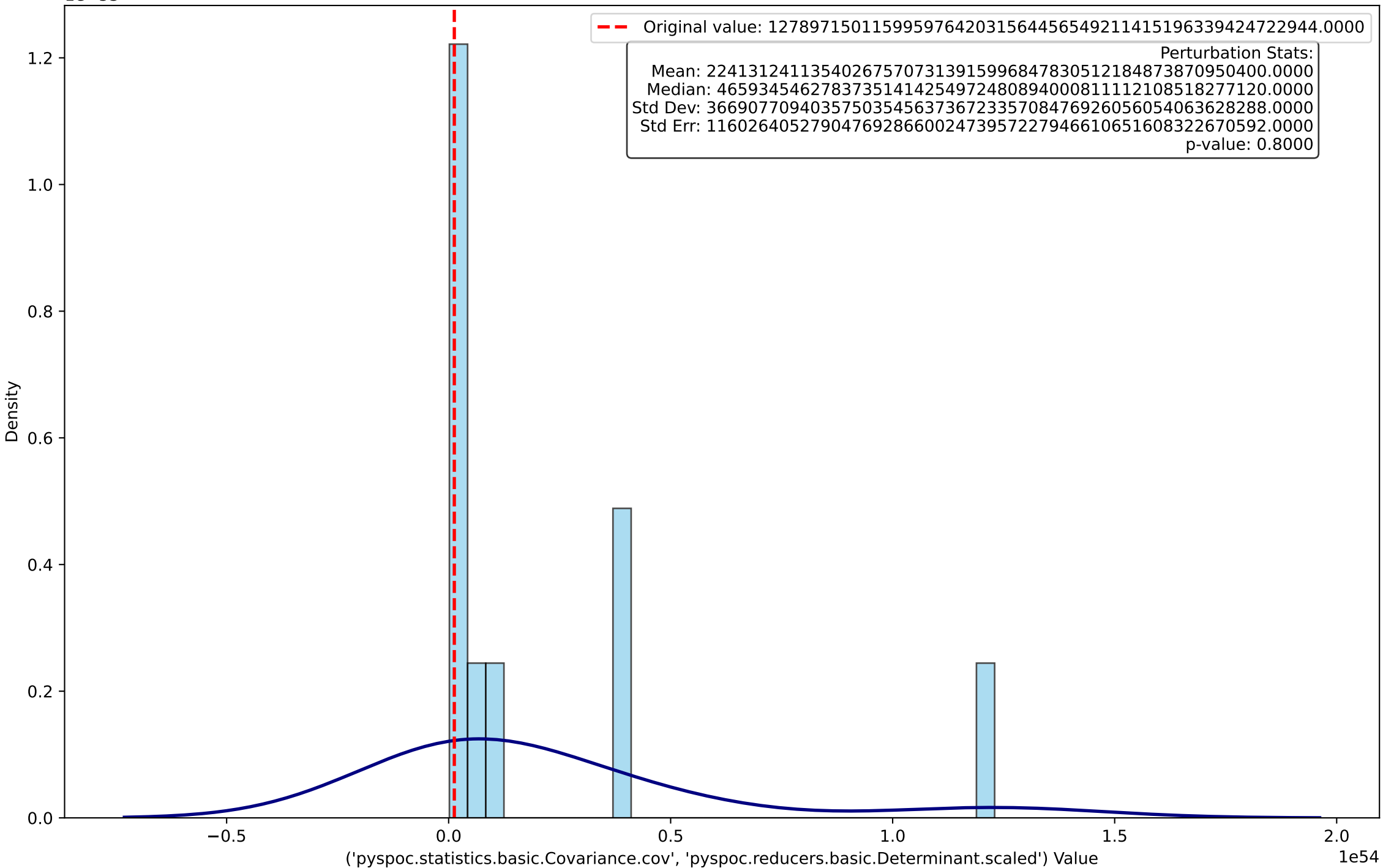
Perturbation Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_2')



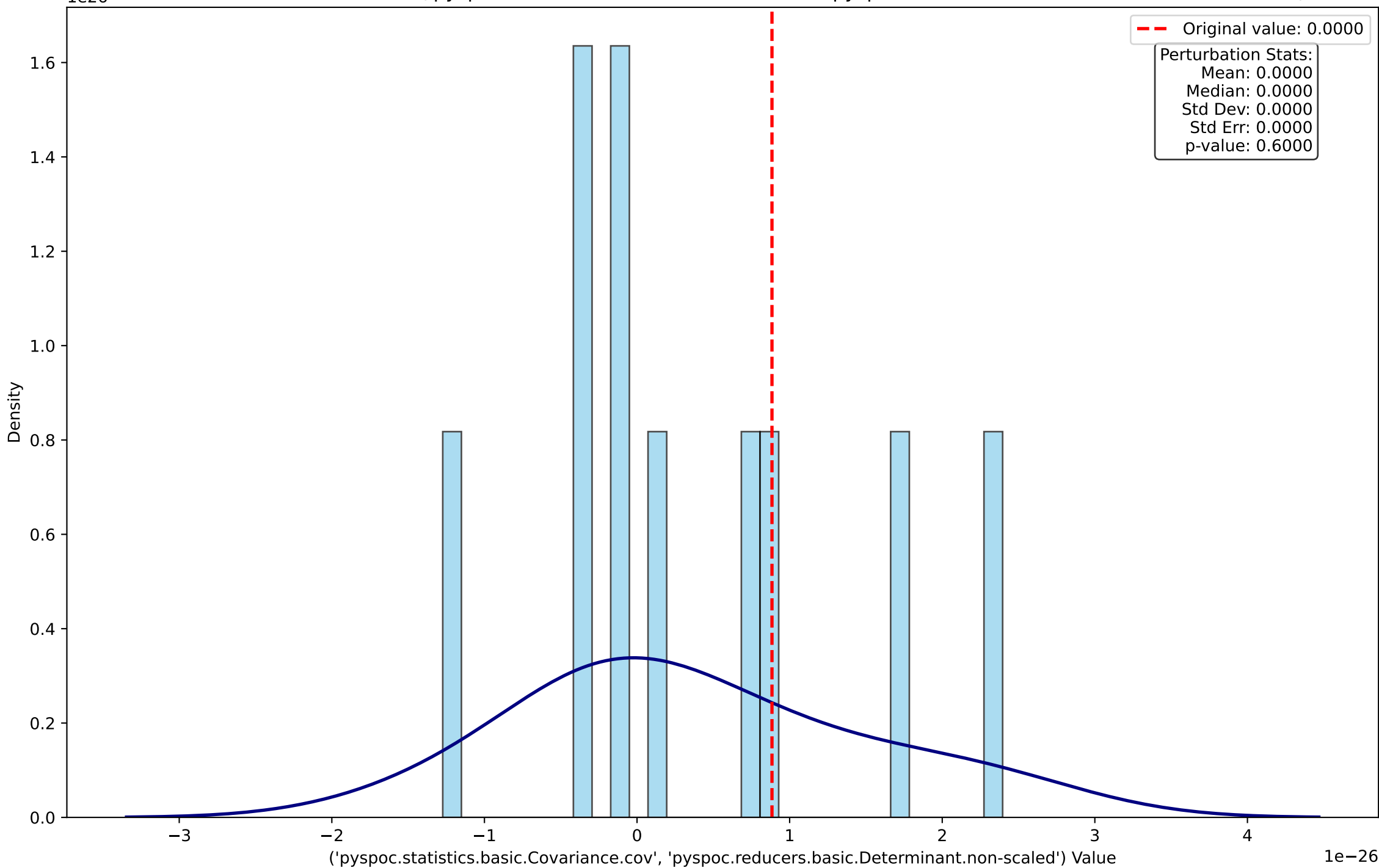
Perturbation Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_3')



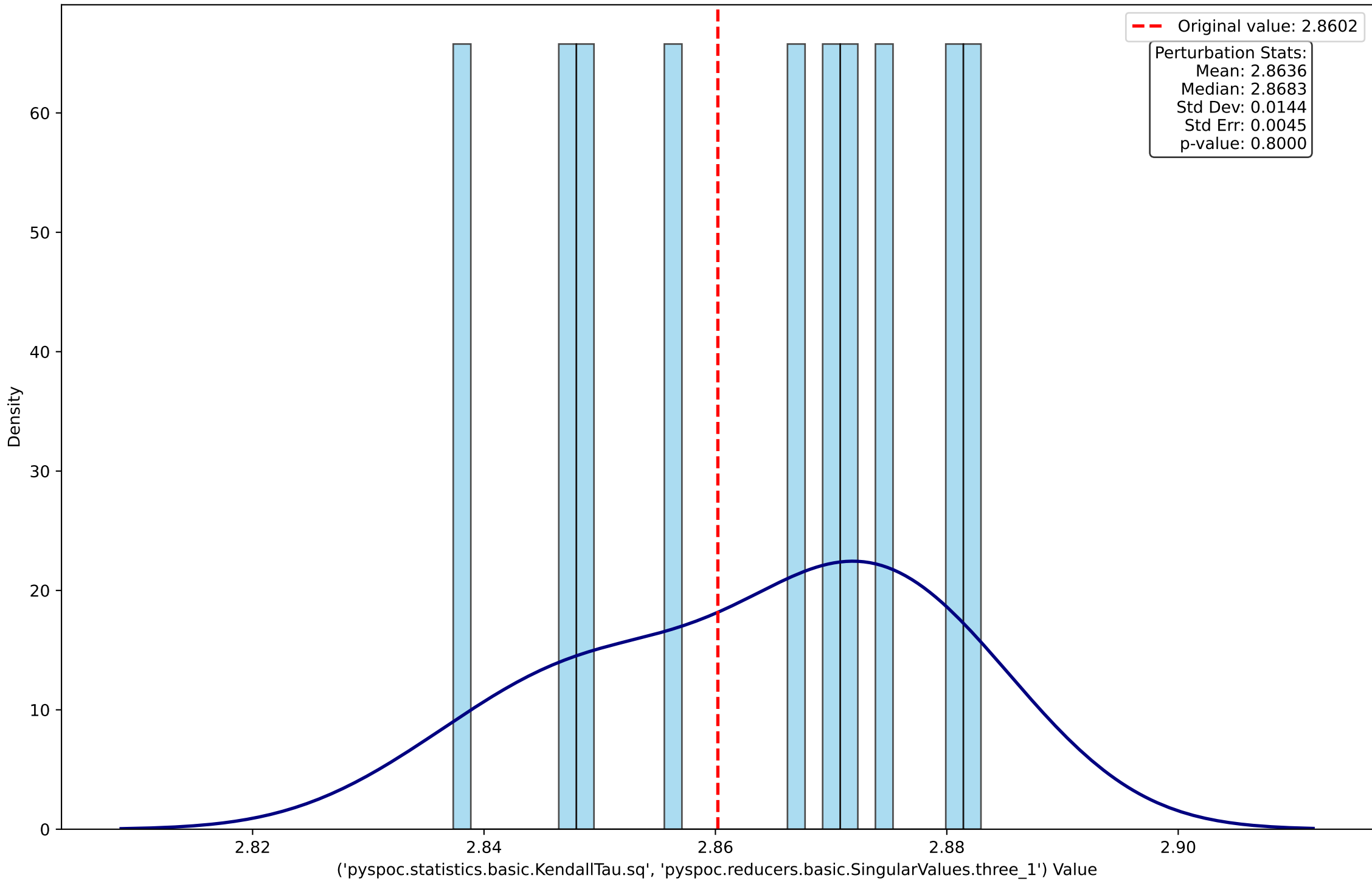
Perturbation Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.Determinant.scaled')



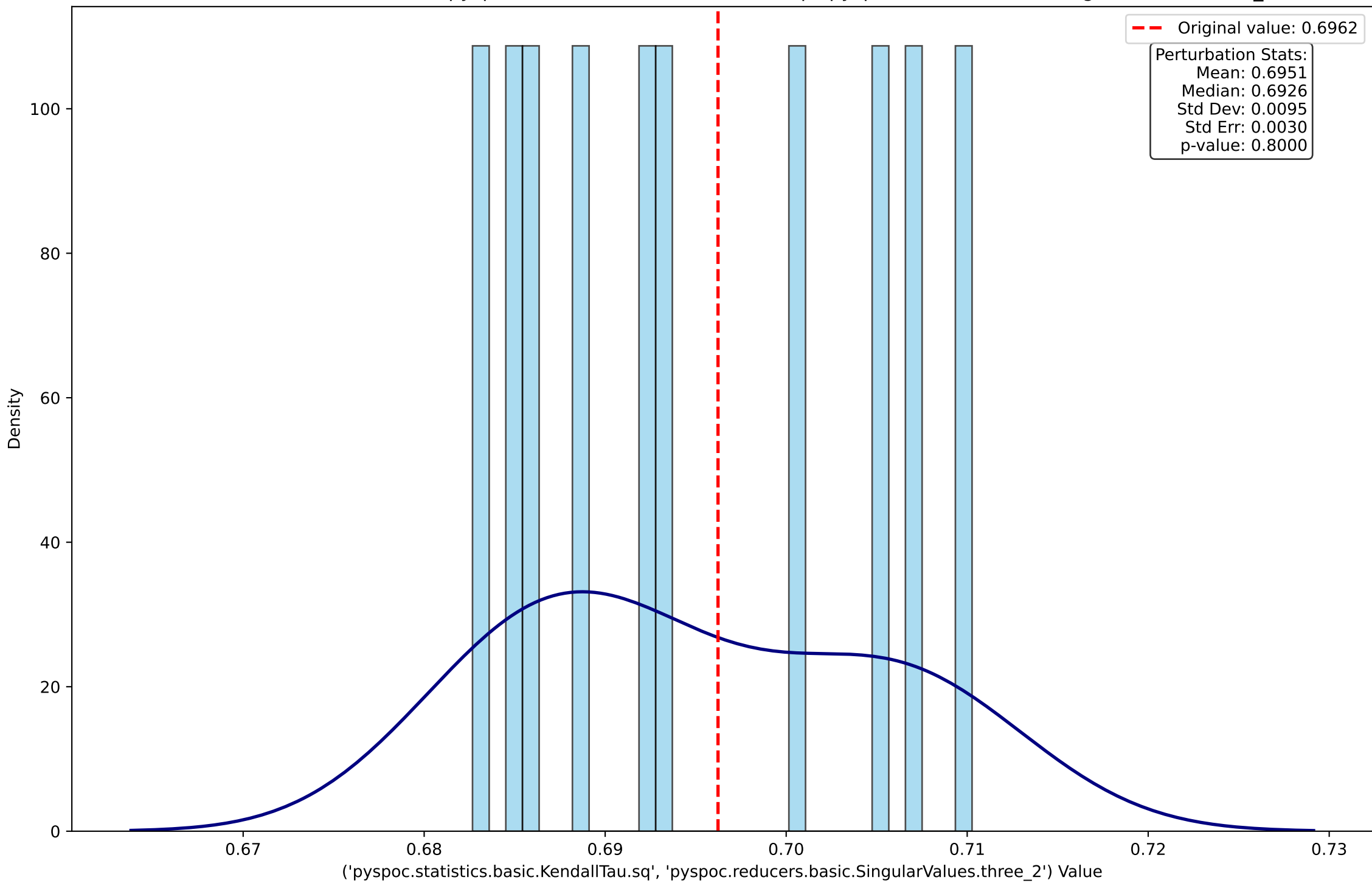
Perturbation Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.Determinant.non-scaled')



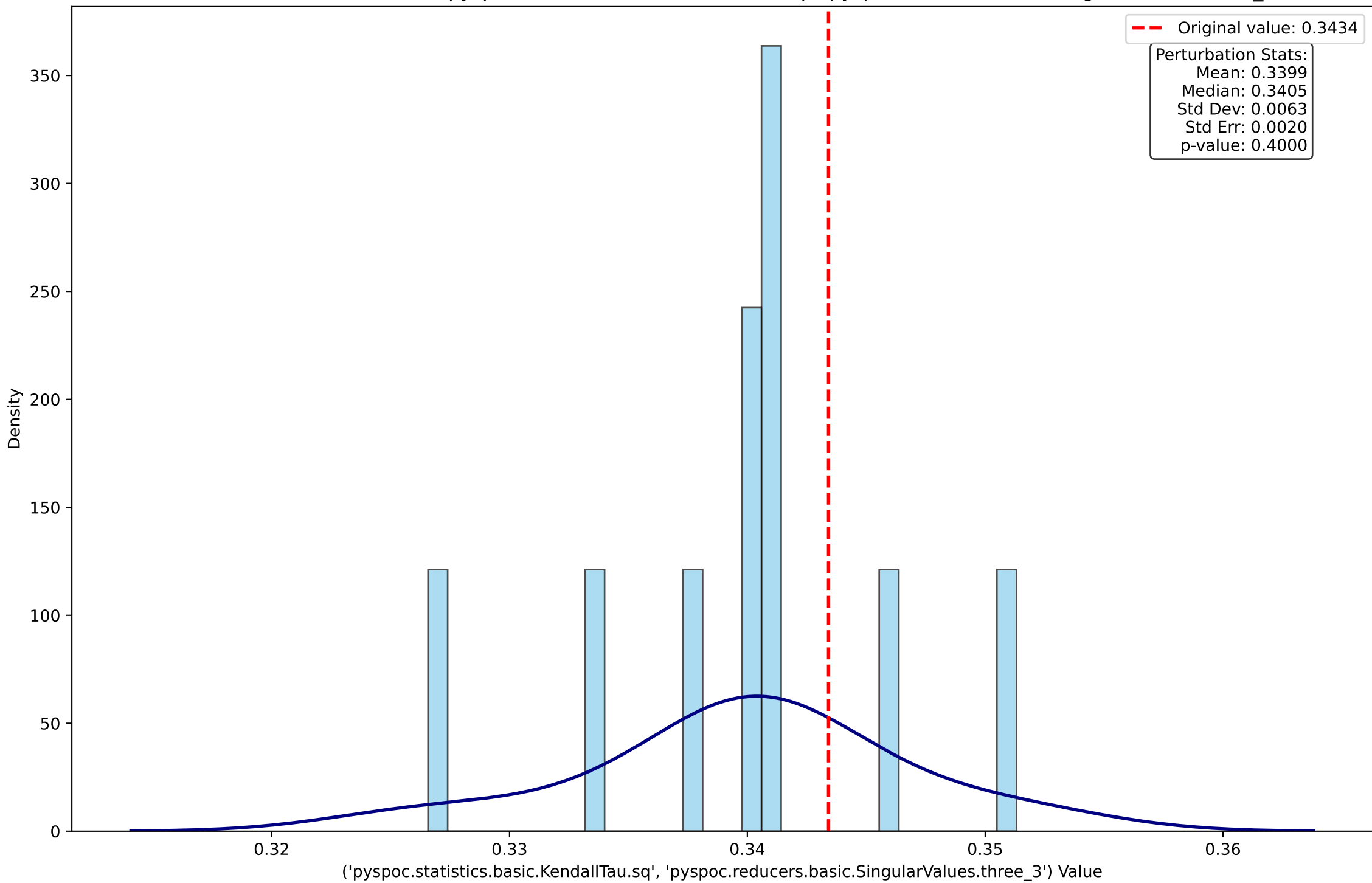
Perturbation Distribution for ('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_1')



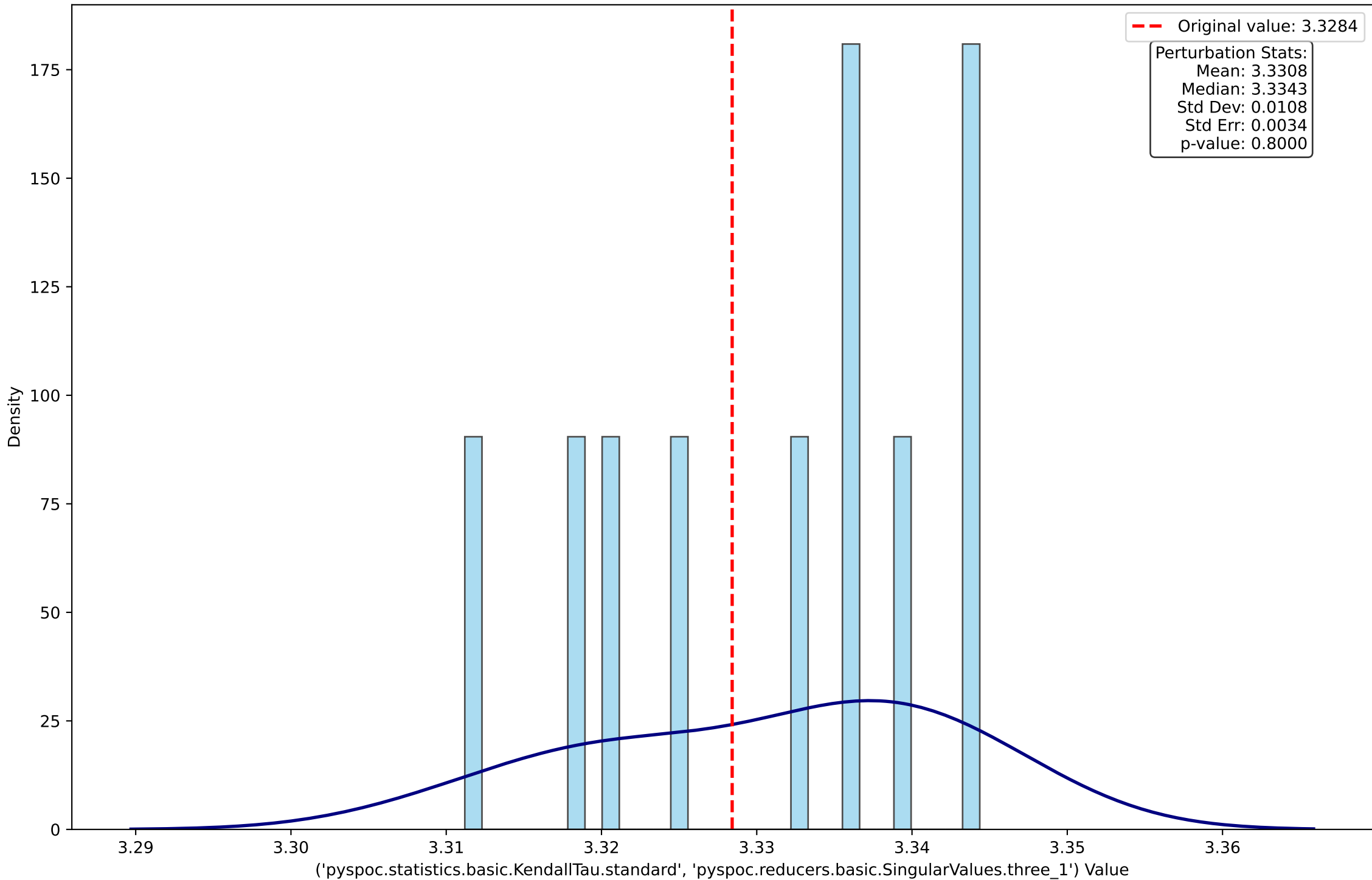
Perturbation Distribution for ('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_2')



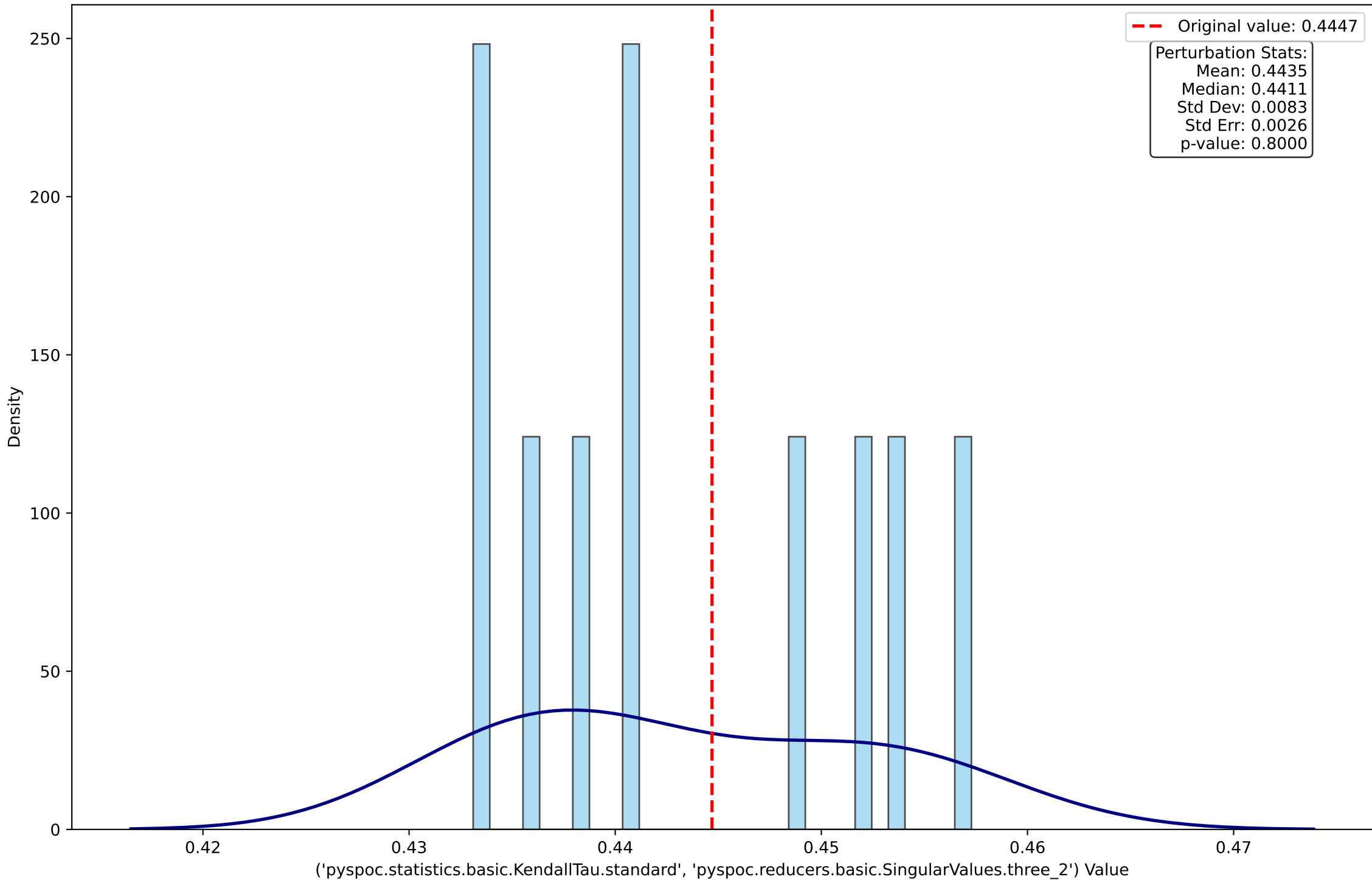
Perturbation Distribution for ('pypoc.statistics.basic.KendallTau.sq', 'pypoc.reducers.basic.SingularValues.three_3')



Perturbation Distribution for ('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_1')



Perturbation Distribution for ('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_2')



Perturbation Distribution for ('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_3')

