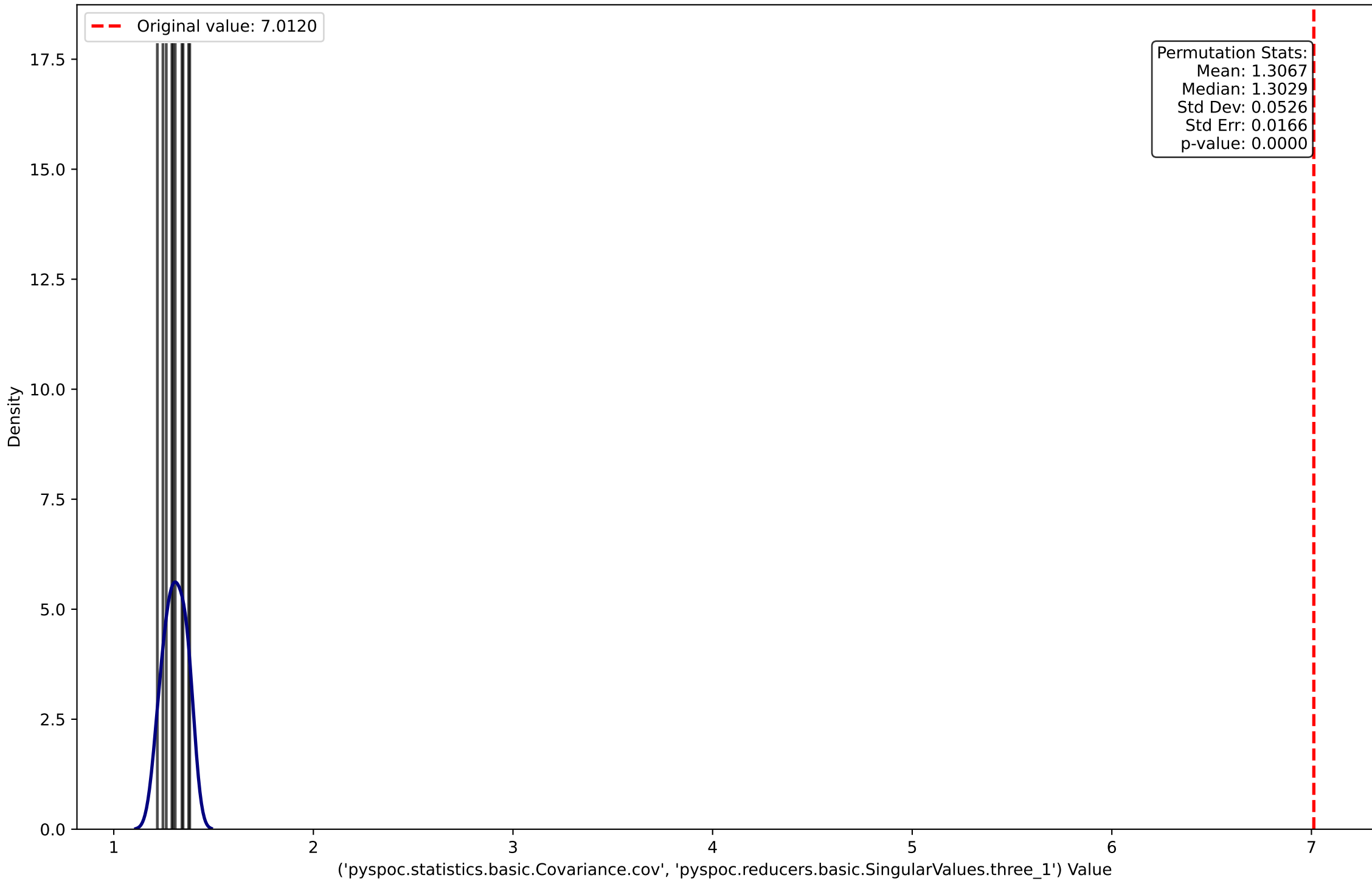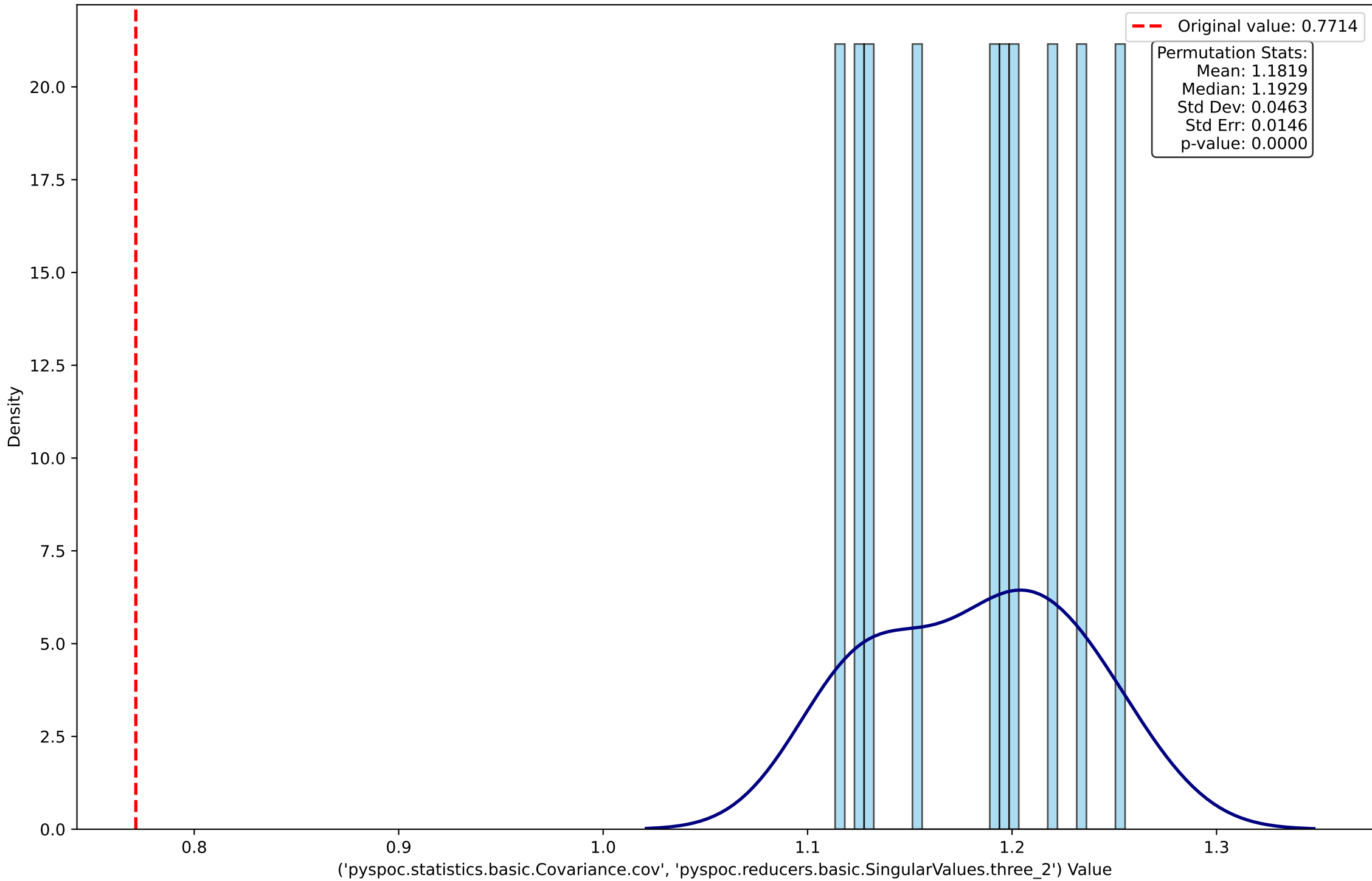Filename: unemployment_rate_by_age_groups.csv
Number of permutations: 10
Number of bootstrap samples: 10
Row bootstrap sample fraction: 90.0%
Column bootstrap sample fraction: 90.0%
Number of perturbations: 10
Scale factor for perturbations: 0.1
Normalization: z-score
Random seed: 42

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

- - - Original value: 7.0120

Permutation Stats:
Mean: 1.3067
Median: 1.3029
Std Dev: 0.0526
Std Err: 0.0166
p-value: 0.0000

Density

('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_1') Value

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

Original value: 0.7714

Permutation Stats:
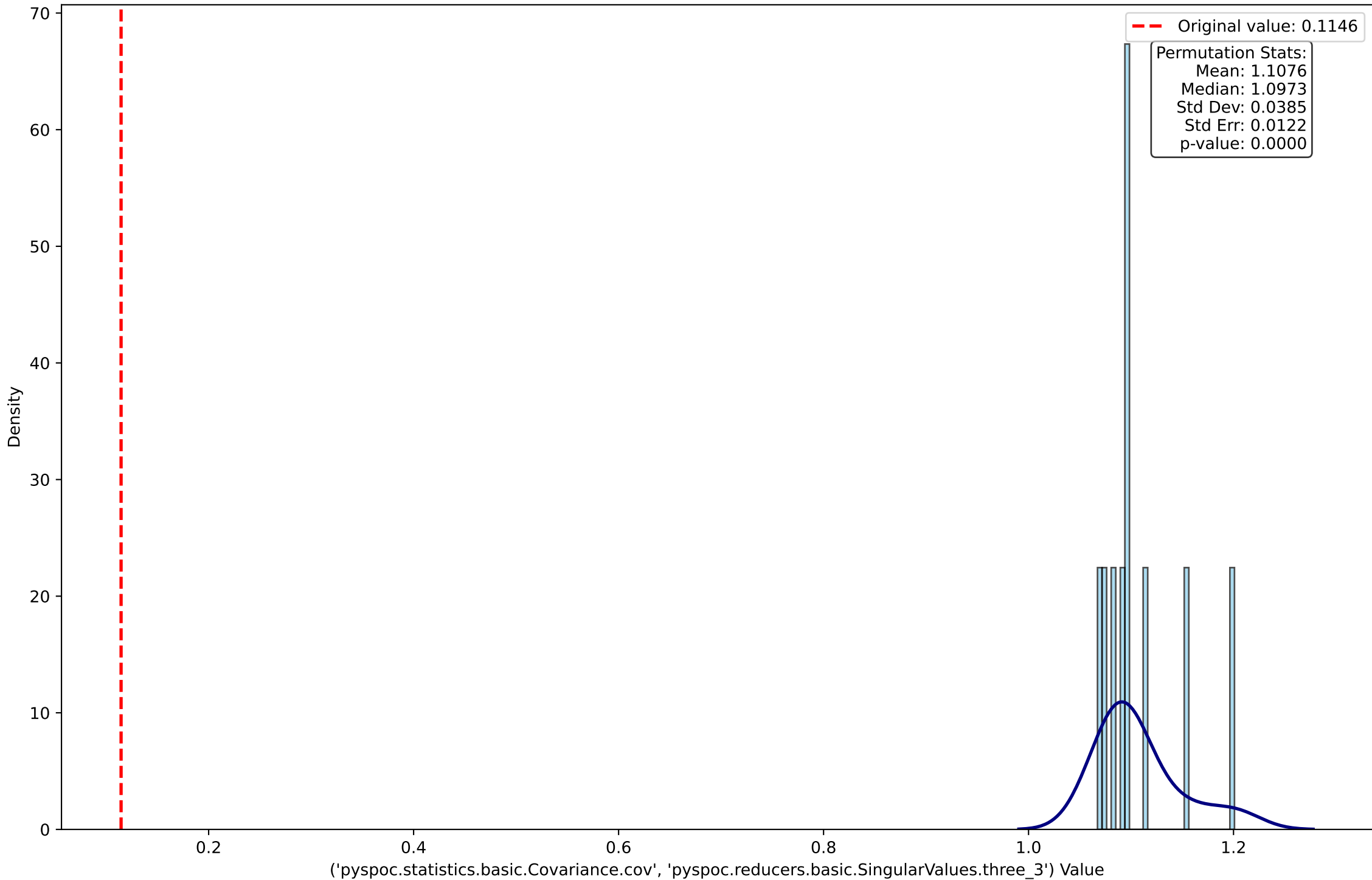Mean: 1.1819
Median: 1.1929
Std Dev: 0.0463
Std Err: 0.0146
p-value: 0.0000

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

- - - Original value: 0.1146
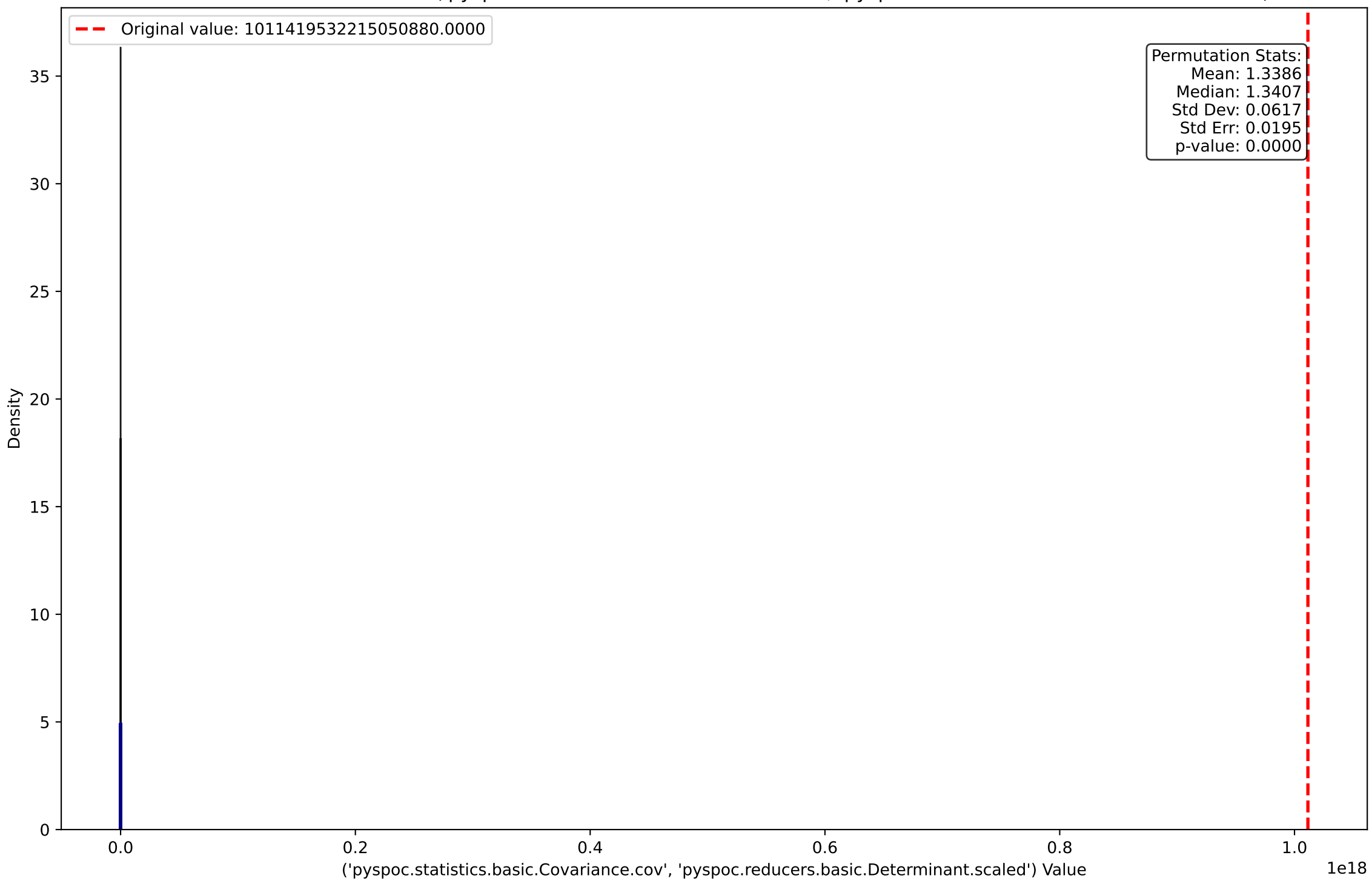
Permutation Stats:
Mean: 1.1076
Median: 1.0973
Std Dev: 0.0385
Std Err: 0.0122
p-value: 0.0000

('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_3') Value

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

Original value: 1011419532215050880.0000

Permutation Stats:
Mean: 1.3386
Median: 1.3407
Std Dev: 0.0617
Std Err: 0.0195
p-value: 0.0000

Density

('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.Determinant.scaled') Value
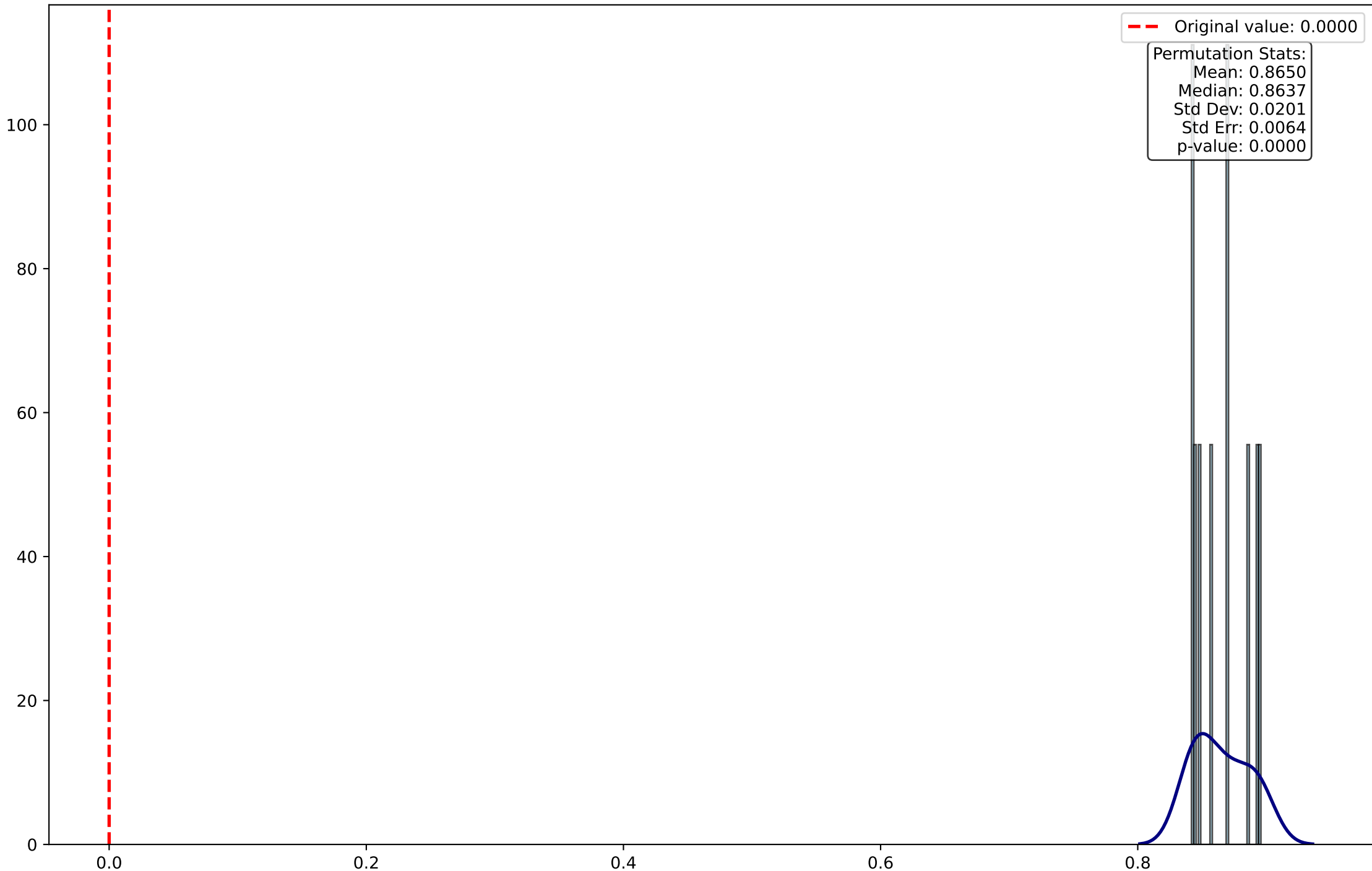
Permutation Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.Determinant.non-scaled')
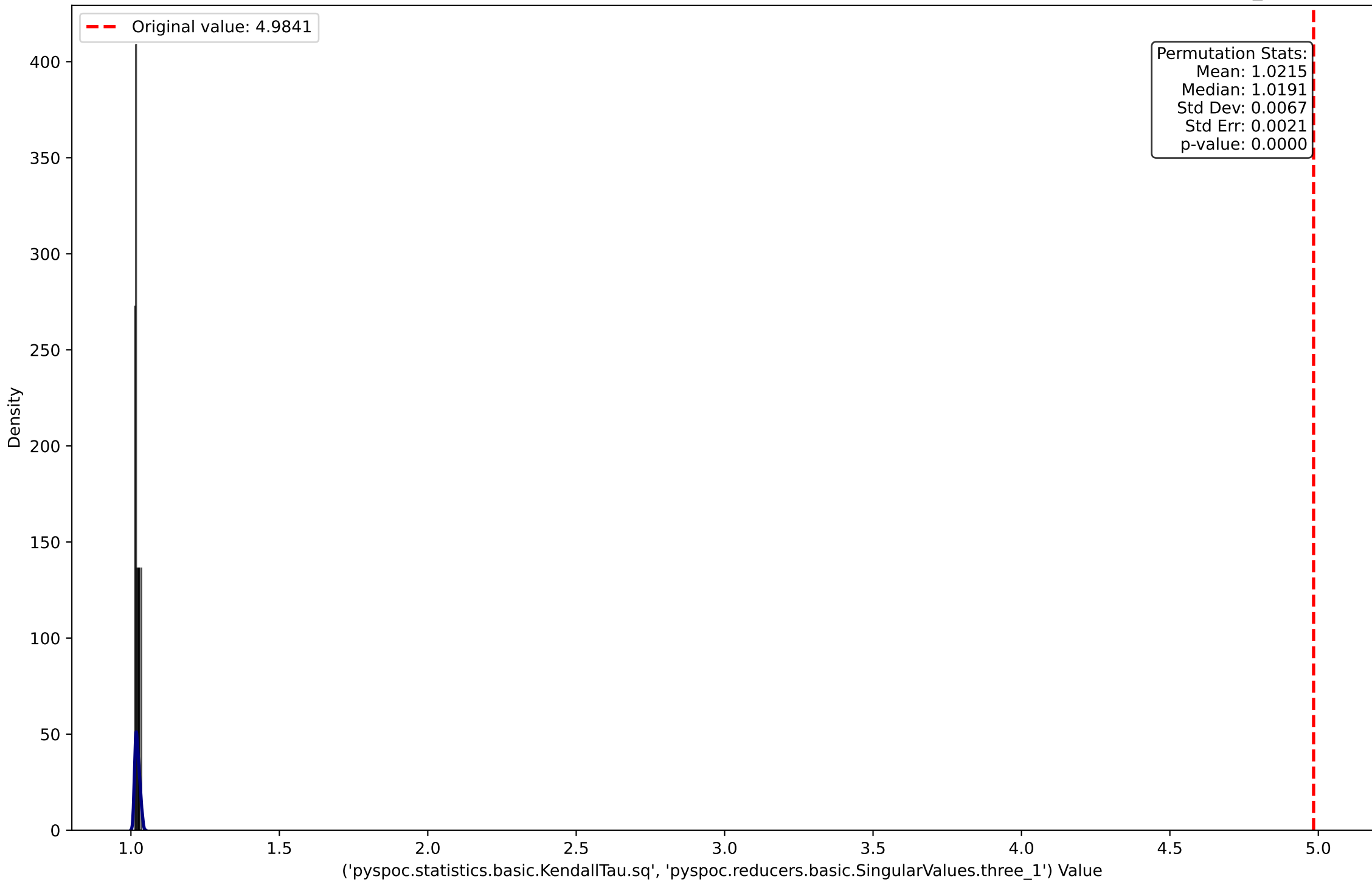
- - - Original value: 0.0000

Permutation Stats:
Mean: 0.8650
Median: 0.8637
Std Dev: 0.0201
Std Err: 0.0064
p-value: 0.0000

Density

('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.Determinant.non-scaled') Value

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

Legend:
- --- Original value: 4.9841

Permutation Stats:
Mean: 1.0215
Median: 1.0191
Std Dev: 0.0067
Std Err: 0.0021
p-value: 0.0000

Density

('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_1') Value

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

Legend:
- Original value: 1.0154

Permutation Stats:
Mean: 1.0088
Median: 1.0076
Std Dev: 0.0035
Std Err: 0.0011
p-value: 0.2000

('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: 0.5559

Permutation Stats:
Mean: 1.0029
Median: 1.0032
Std Dev: 0.0017
Std Err: 0.0005
p-value: 0.0000

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

Original value: 6.1059

Permutation Stats:
Mean: 1.2097
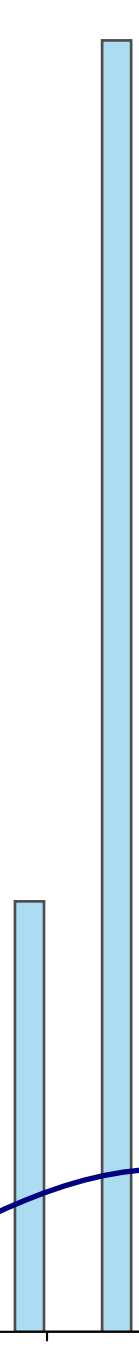Median: 1.2167
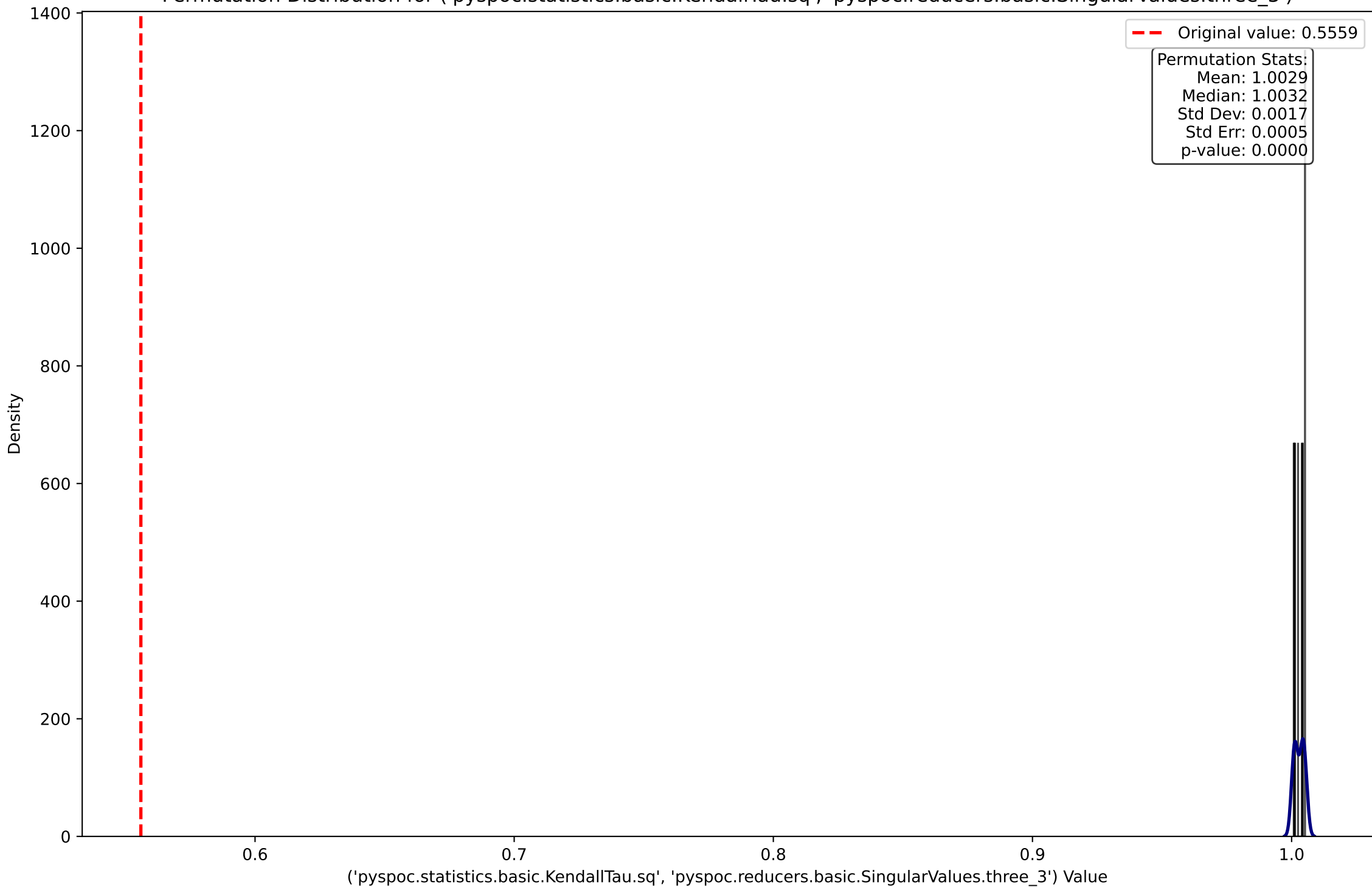Std Dev: 0.0327
Std Err: 0.0104
p-value: 0.0000

Density

('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_1') Value

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

Original value: 0.7953

Permutation Stats:
Mean: 1.1218
Median: 1.1218
Std Dev: 0.0316
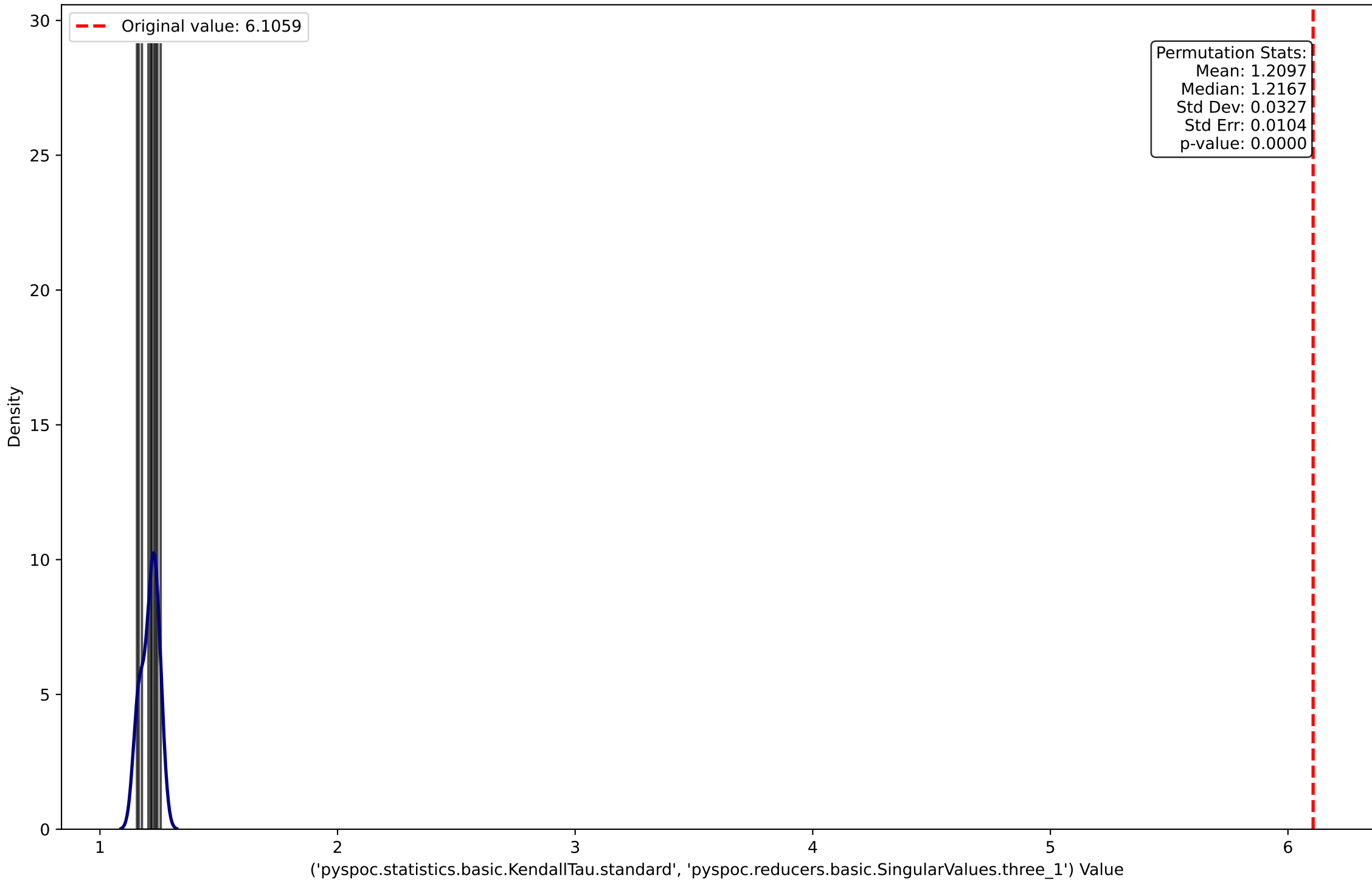Std Err: 0.0100
p-value: 0.0000

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

Original value: 0.3099

Permutation Stats:
Mean: 1.0731
Median: 1.0670
Std Dev: 0.0212
Std Err: 0.0067
p-value: 0.0000

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

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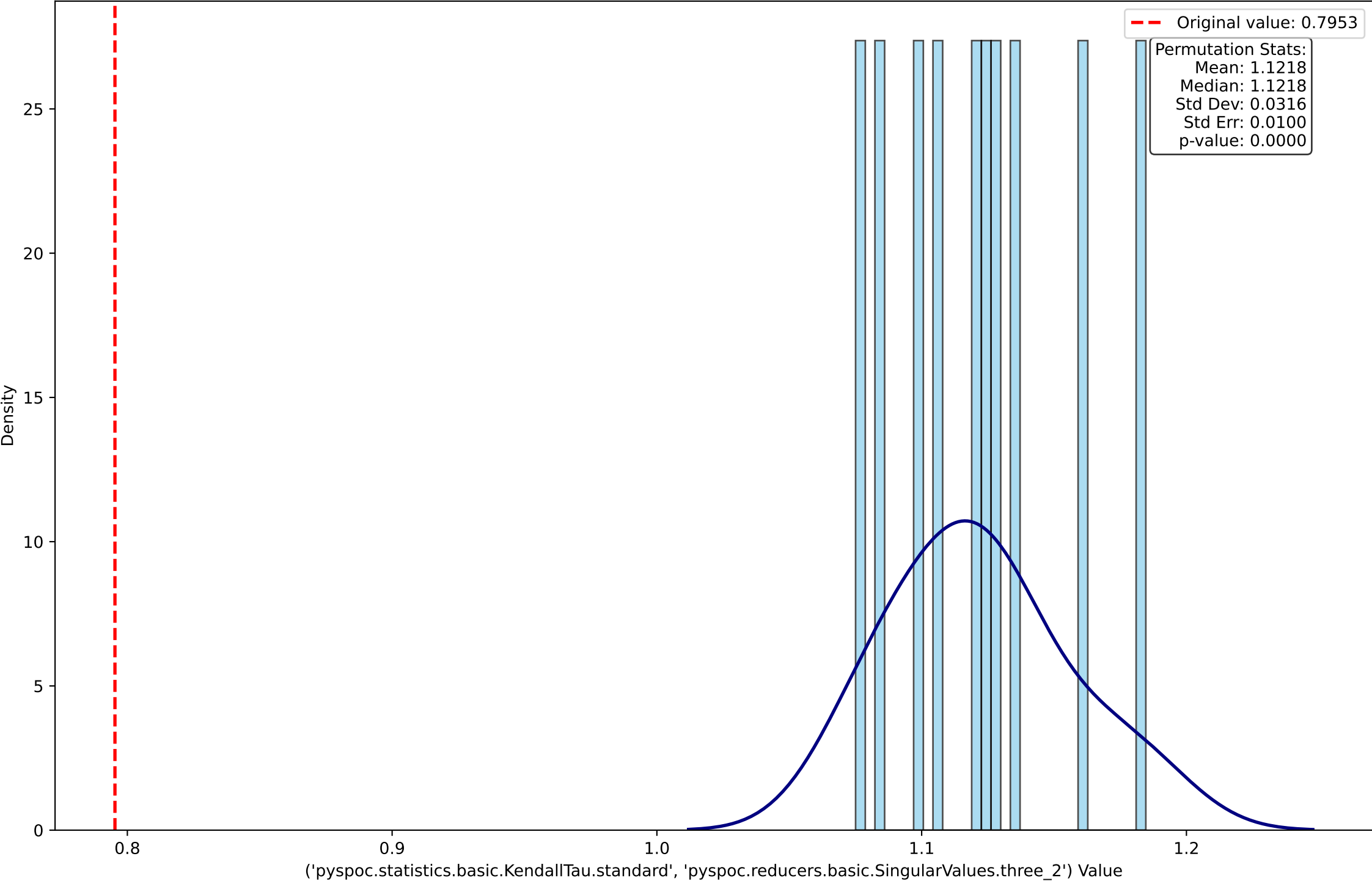
Row Bootstrap Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_1')

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

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

Row Bootstrap samples: 10, Sample fraction: 90.0%

- - - Original value: 0.1146
····· 95% CI: [0.0855, 0.1247]
Mean: 0.1046
Median: 0.1009
Std Dev: 0.0126
Std Err: 0.0040
Bias: -0.0100
CV: 12.07%
Original in CI: True

('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_3') Value

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

Row Bootstrap samples: 10, S...

— Original value: 1011419532215050880.0000

········ 95% CI: [547752147211836352.0000, 4310254726023335936.0000]

Mean: 2024351966687724800.0000
Median: 1798036251004957696.0000
Std Dev: 1270675531432586752.0000
Std Err: 401822884637185216.0000
Bias: 1012932434472673920.0000
CV: 62.77%
Original in CI: True

Density

('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.Determinant.scaled') Value

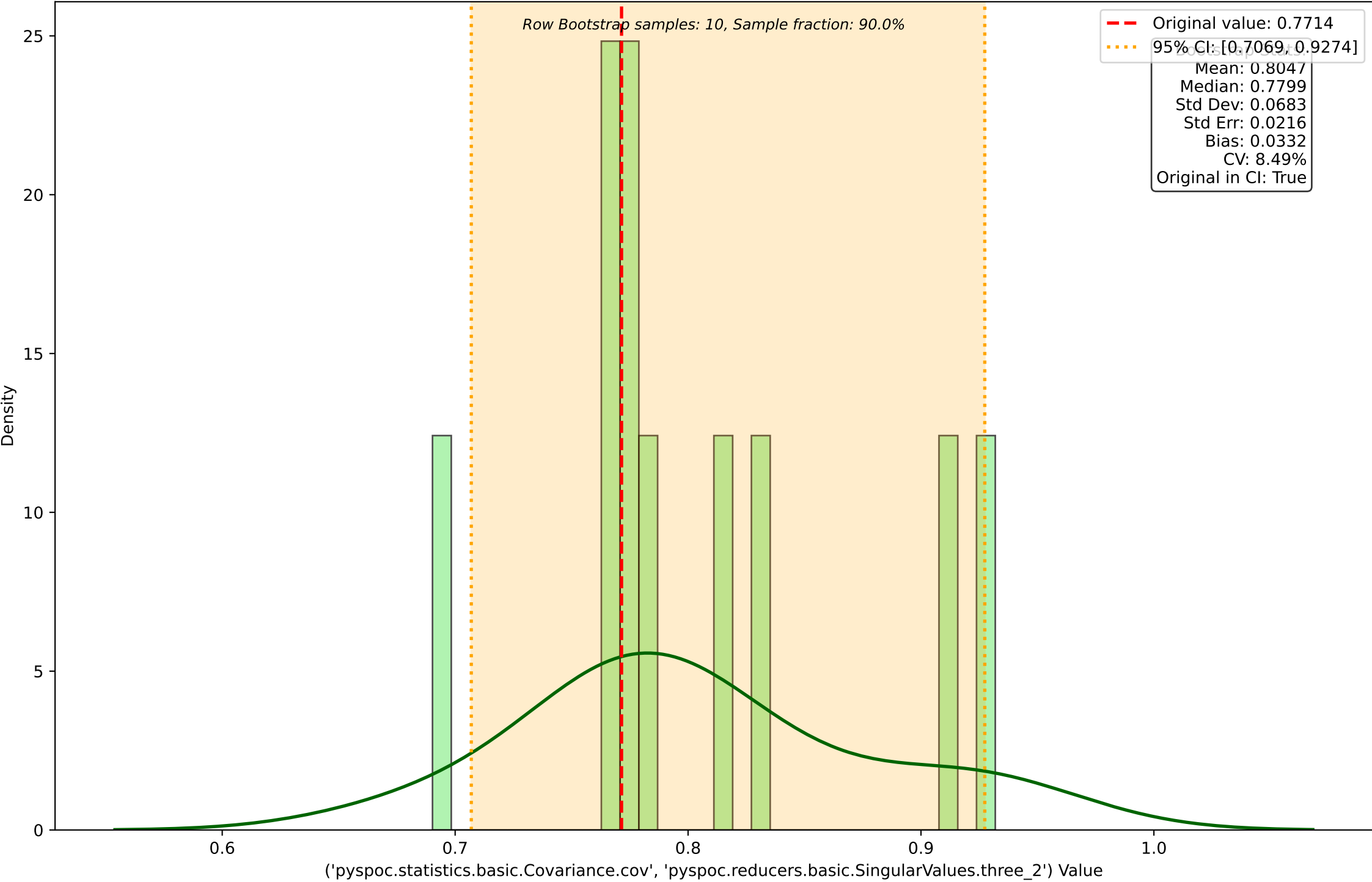Row Bootstrap Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.Determinant.non-scaled')

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

Row Bootstrap samples: 10, Sample fraction: 90.0%

- - - Original value: 4.9841
· · · · · 95% CI: [4.9023, 5.0766]
Mean: 4.9657
Median: 4.9510
Std Dev: 0.0533
Std Err: 0.0169
Bias: -0.0184
CV: 1.07%
Original in CI: True

('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_1') Value

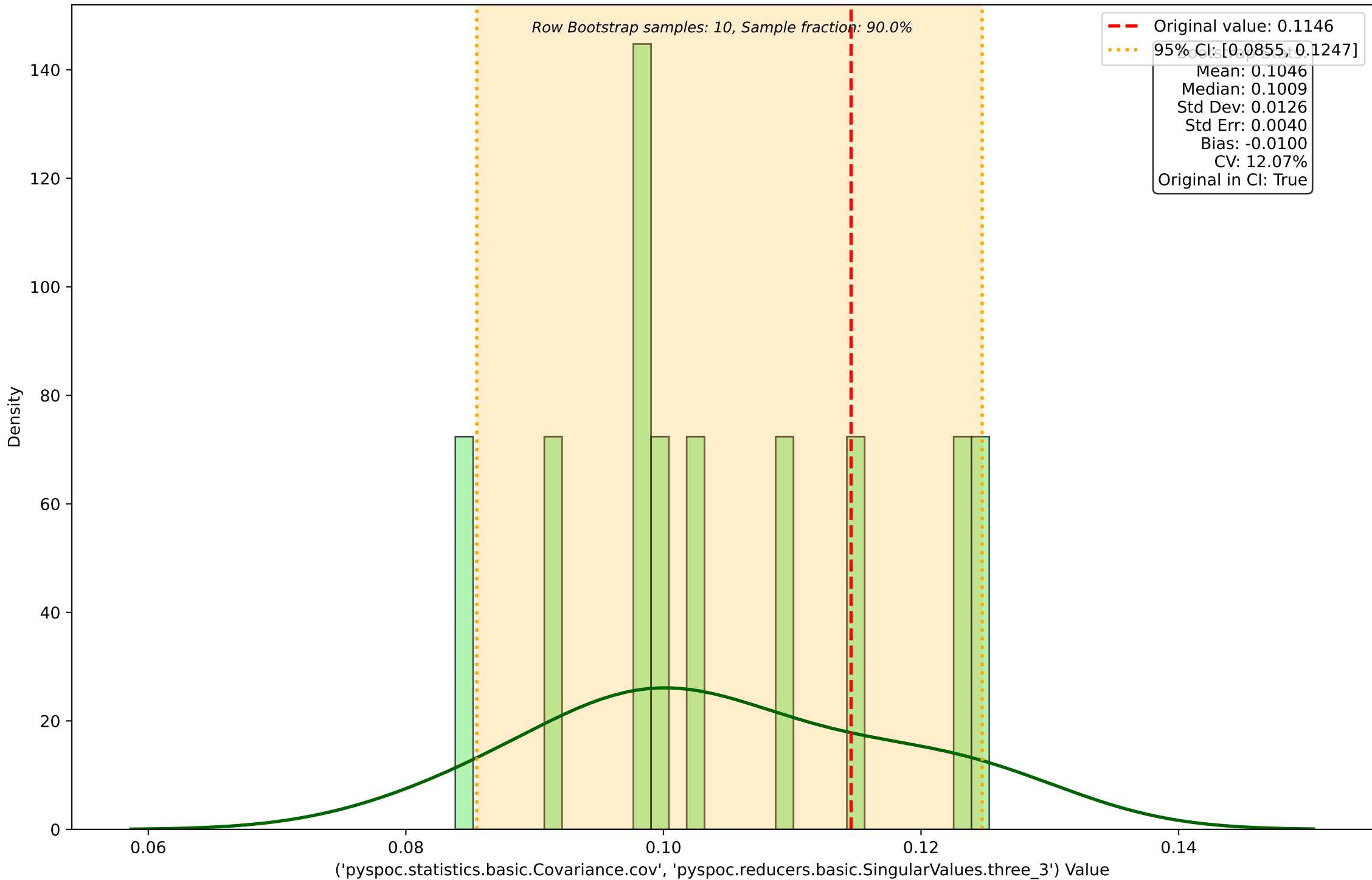Row Bootstrap Distribution for ('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_2')
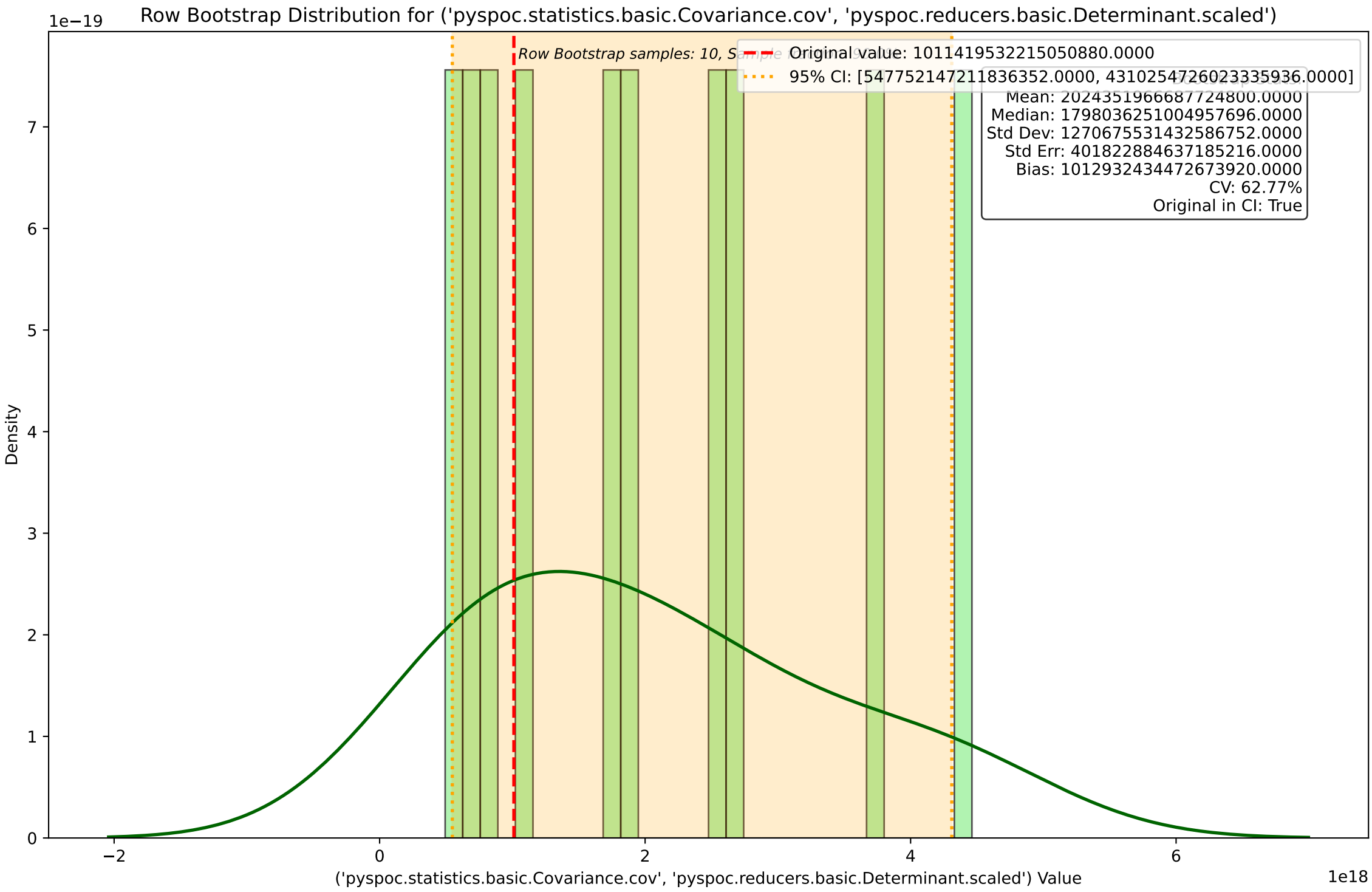
Row Bootstrap samples: 10, Sample fraction: 90.0%

Legend:
- Original value: 1.0154
- 95% CI: [0.9612, 1.0684]
- Mean: 1.0319
- Median: 1.0365
- Std Dev: 0.0350
- Std Err: 0.0111
- Bias: 0.0165
- CV: 3.39%
- Original in CI: True

Y-axis: Density

X-axis: ('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_2') Value

Row Bootstrap Distribution for ('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_3')
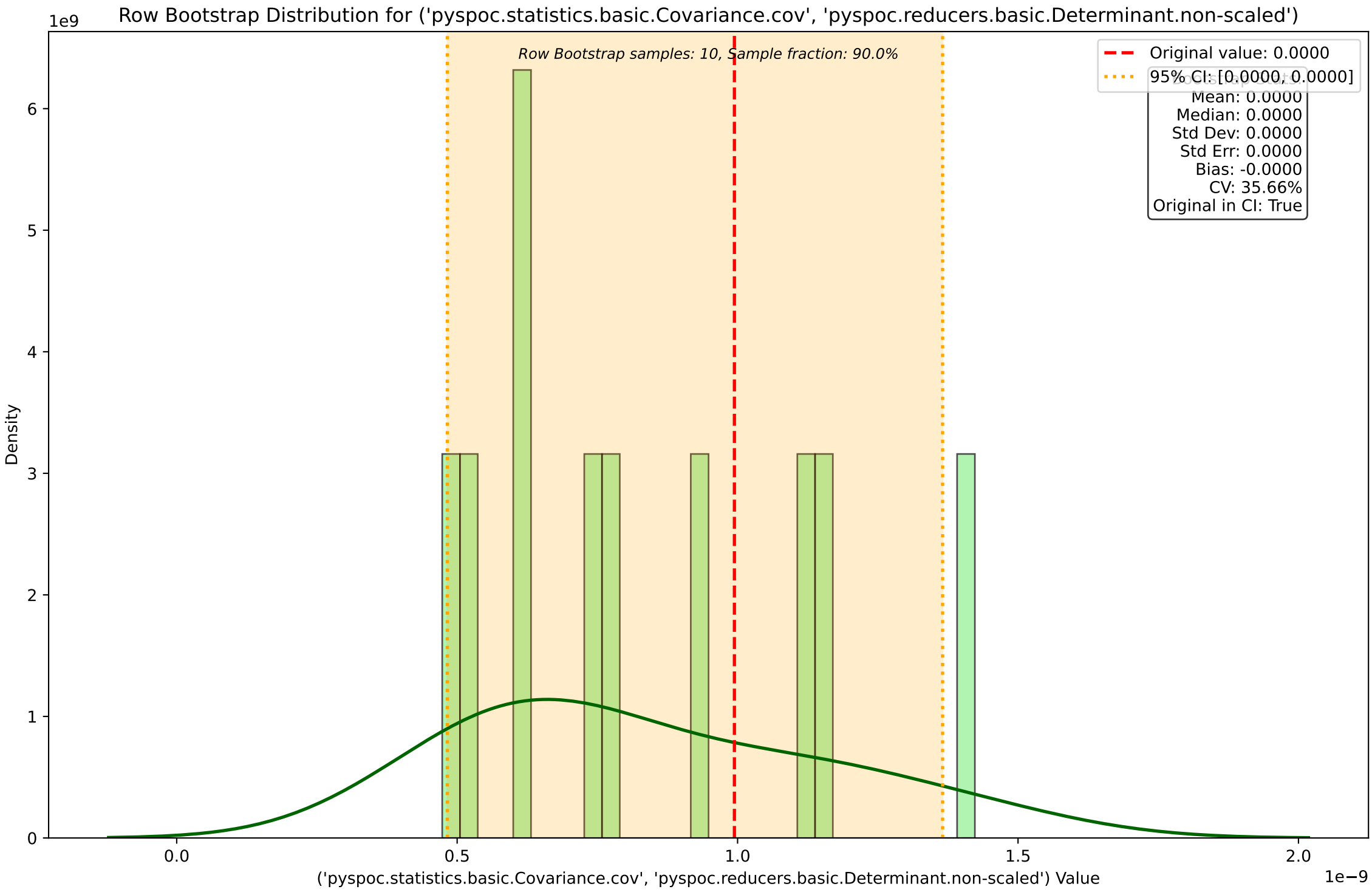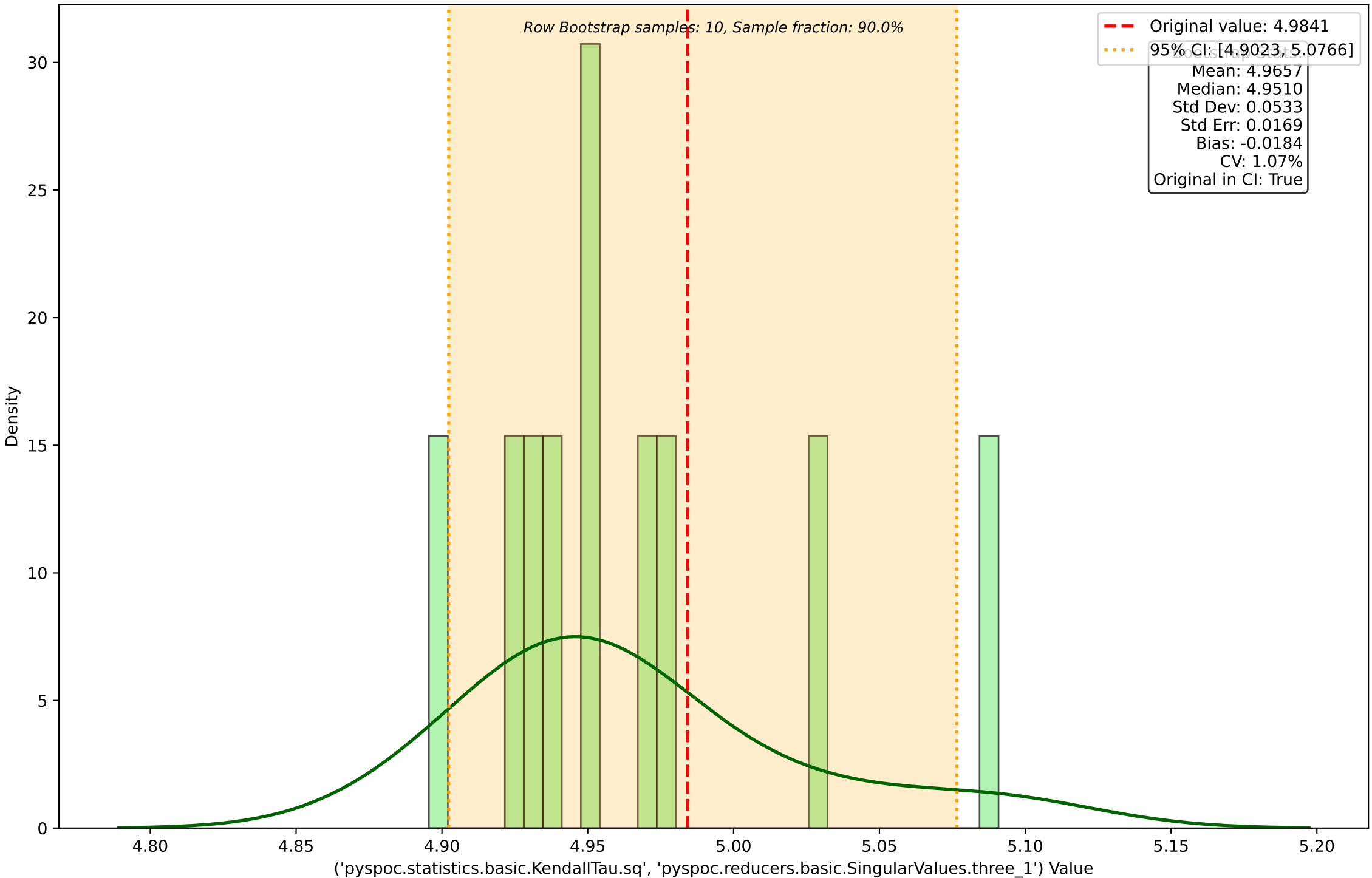
Row Bootstrap samples: 10, Sample fraction: 90.0%

Legend:
- Original value: 0.5559
- 95% CI: [0.5299, 0.6086]
- Mean: 0.5686
- Median: 0.5634
- Std Dev: 0.0271
- Std Err: 0.0086
- Bias: 0.0126
- CV: 4.77%
- Original in CI: True

Y-axis: Density

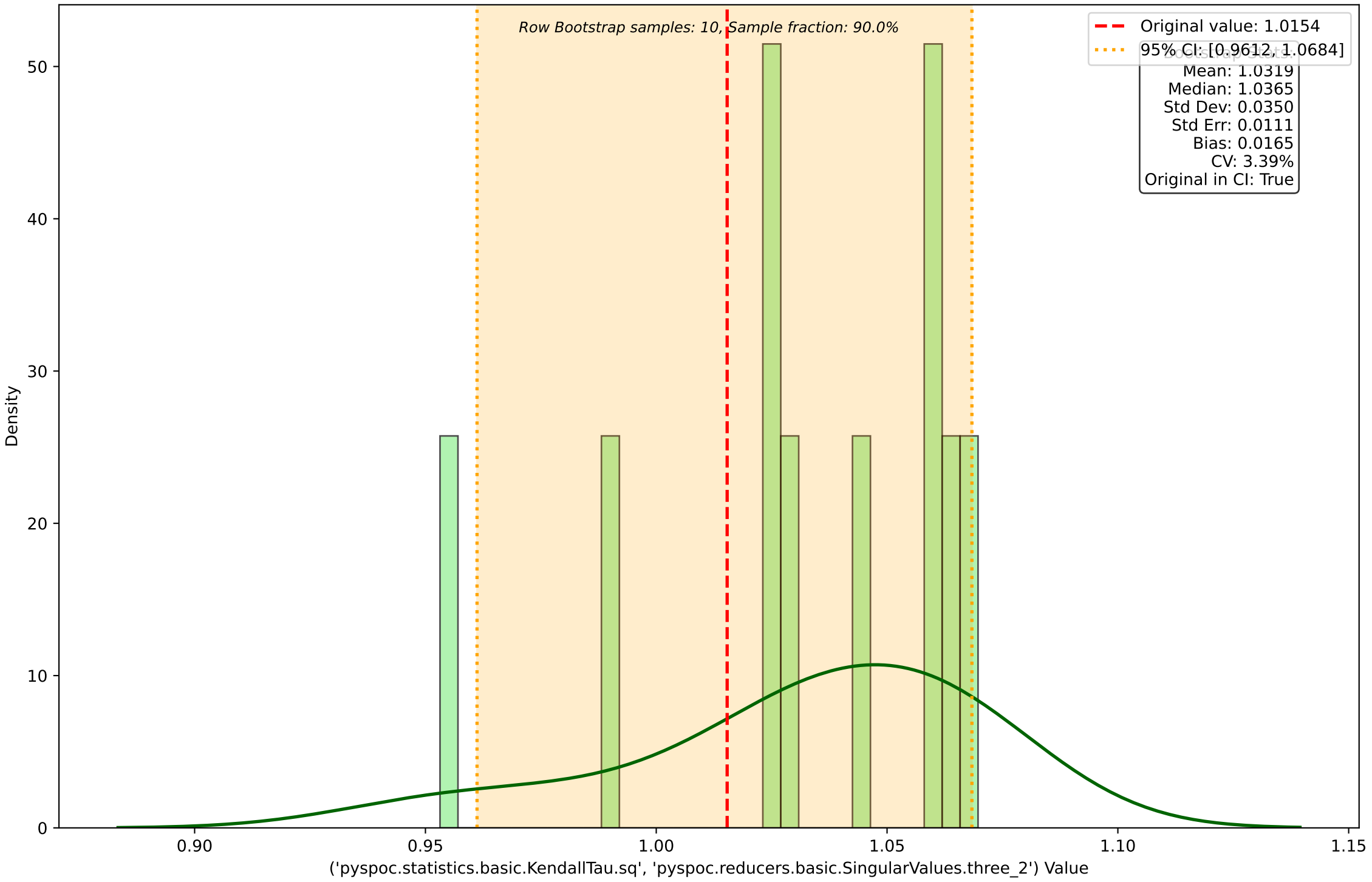X-axis: ('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_3') Value

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

Row Bootstrap samples: 10, Sample fraction: 90.0%

Original value: 6.1059
95% CI: [5.9998, 6.1914]
Mean: 6.0776
Median: 6.0793
Std Dev: 0.0577
Std Err: 0.0182
Bias: -0.0283
CV: 0.95%
Original in CI: True

Density

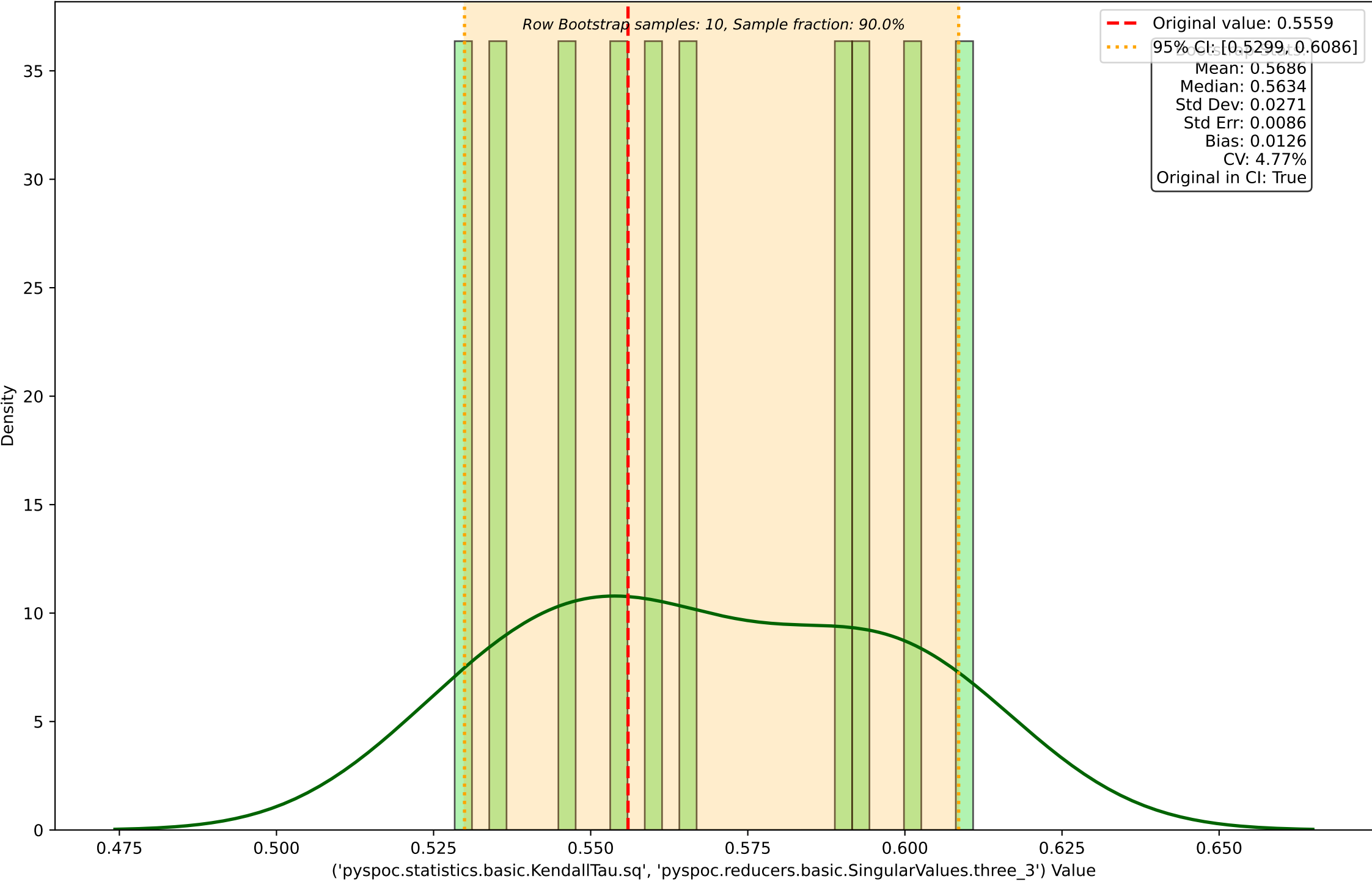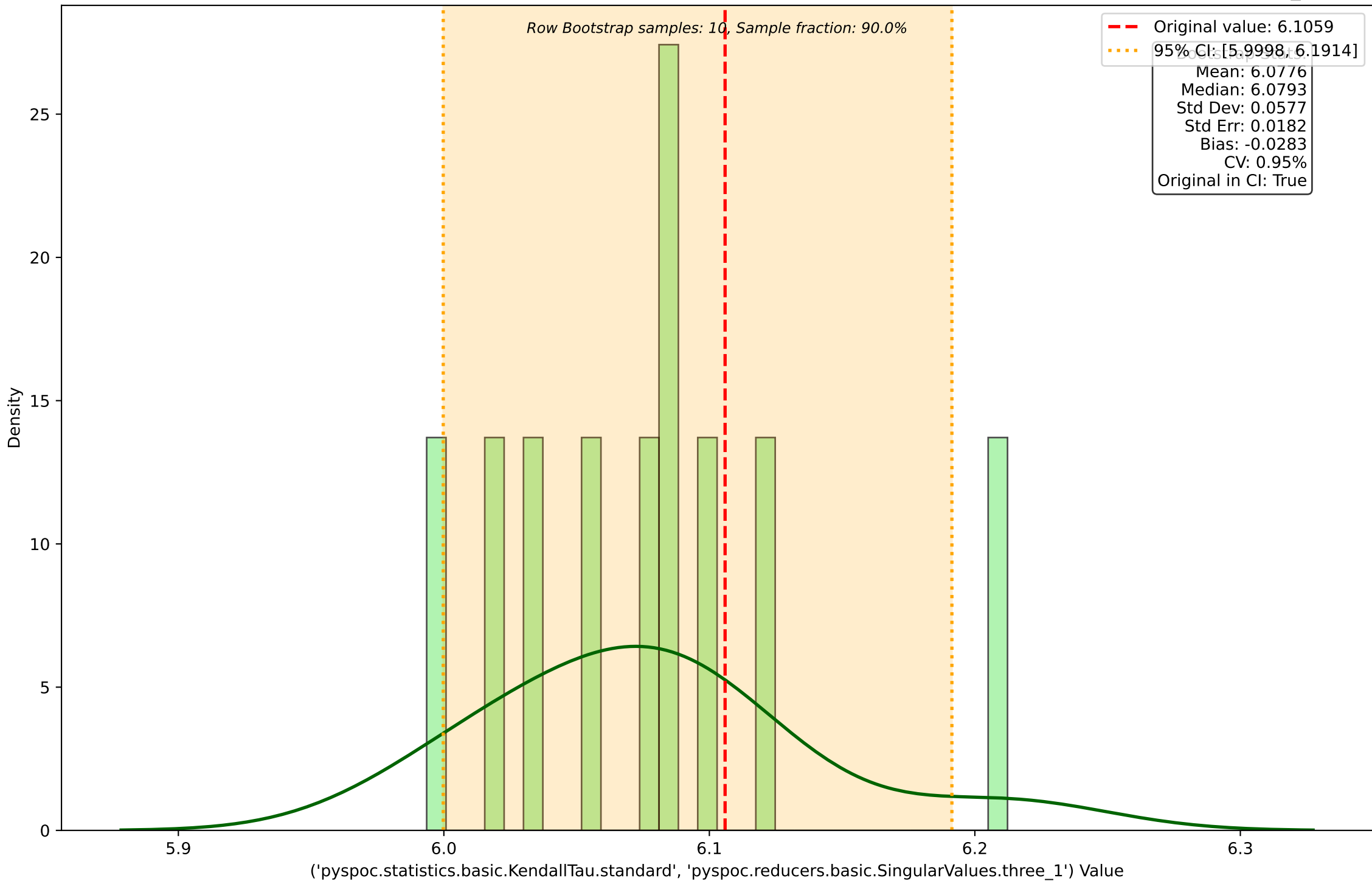('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_1') Value

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

Row Bootstrap samples: 10, Sample fraction: 90.0%

Legend:
- Original value: 0.7953
- 95% CI: [0.7305, 0.9171]
- Bootstrap
- Mean: 0.8232
- Median: 0.8189
- Std Dev: 0.0548
- Std Err: 0.0173
- Bias: 0.0279
- CV: 6.66%
- Original in CI: True

X-axis: ('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_2') Value

Y-axis: Density

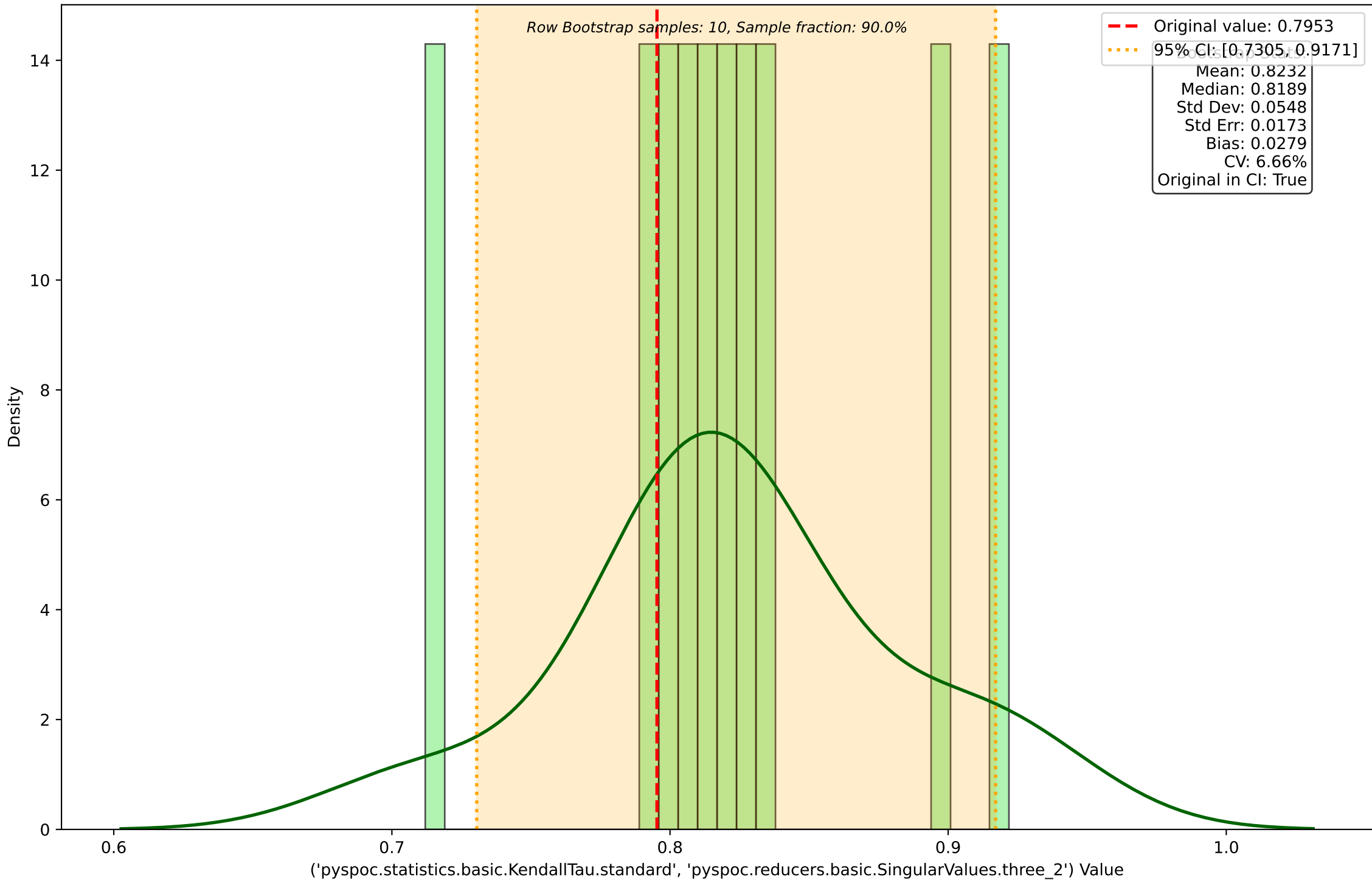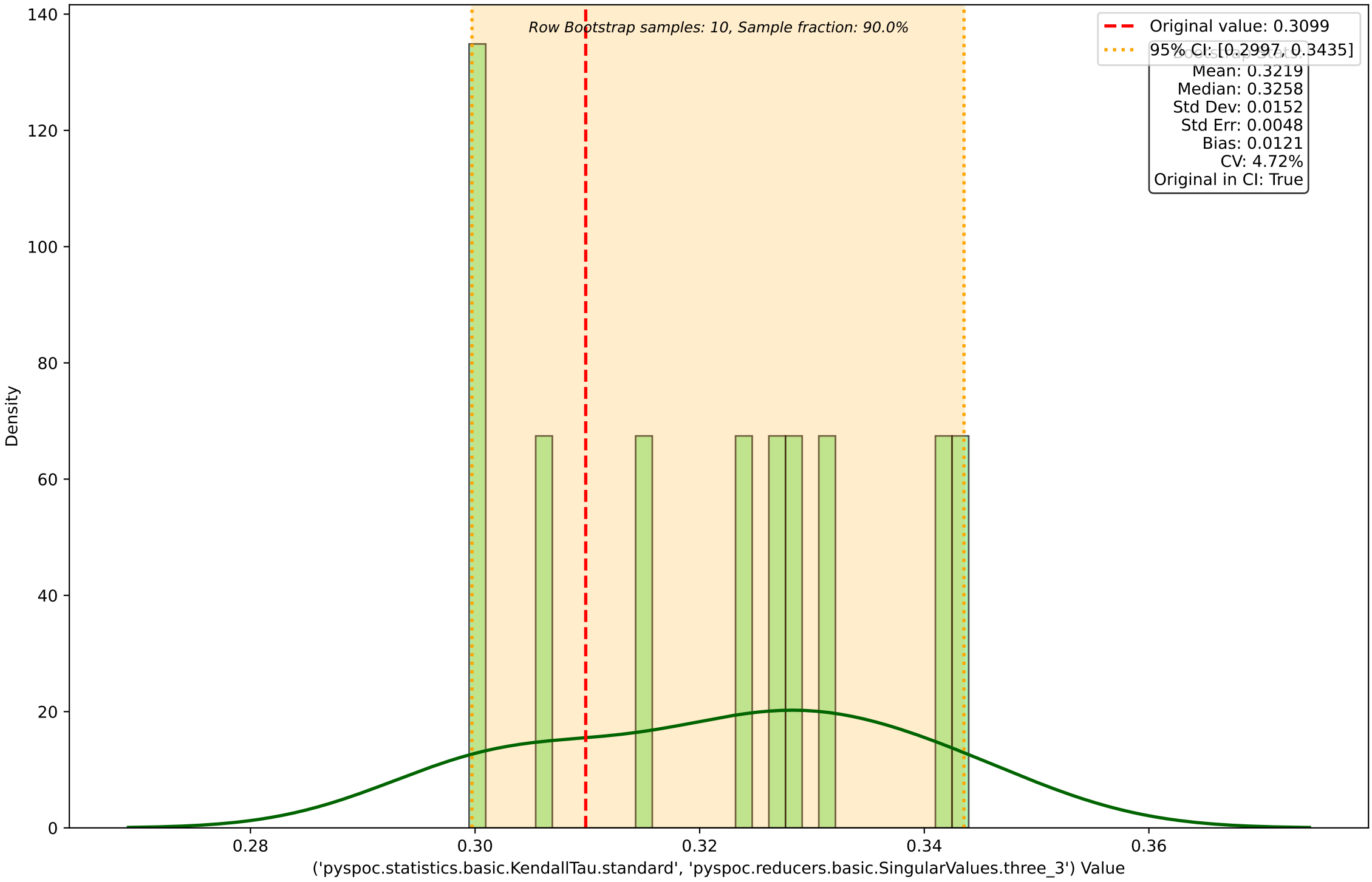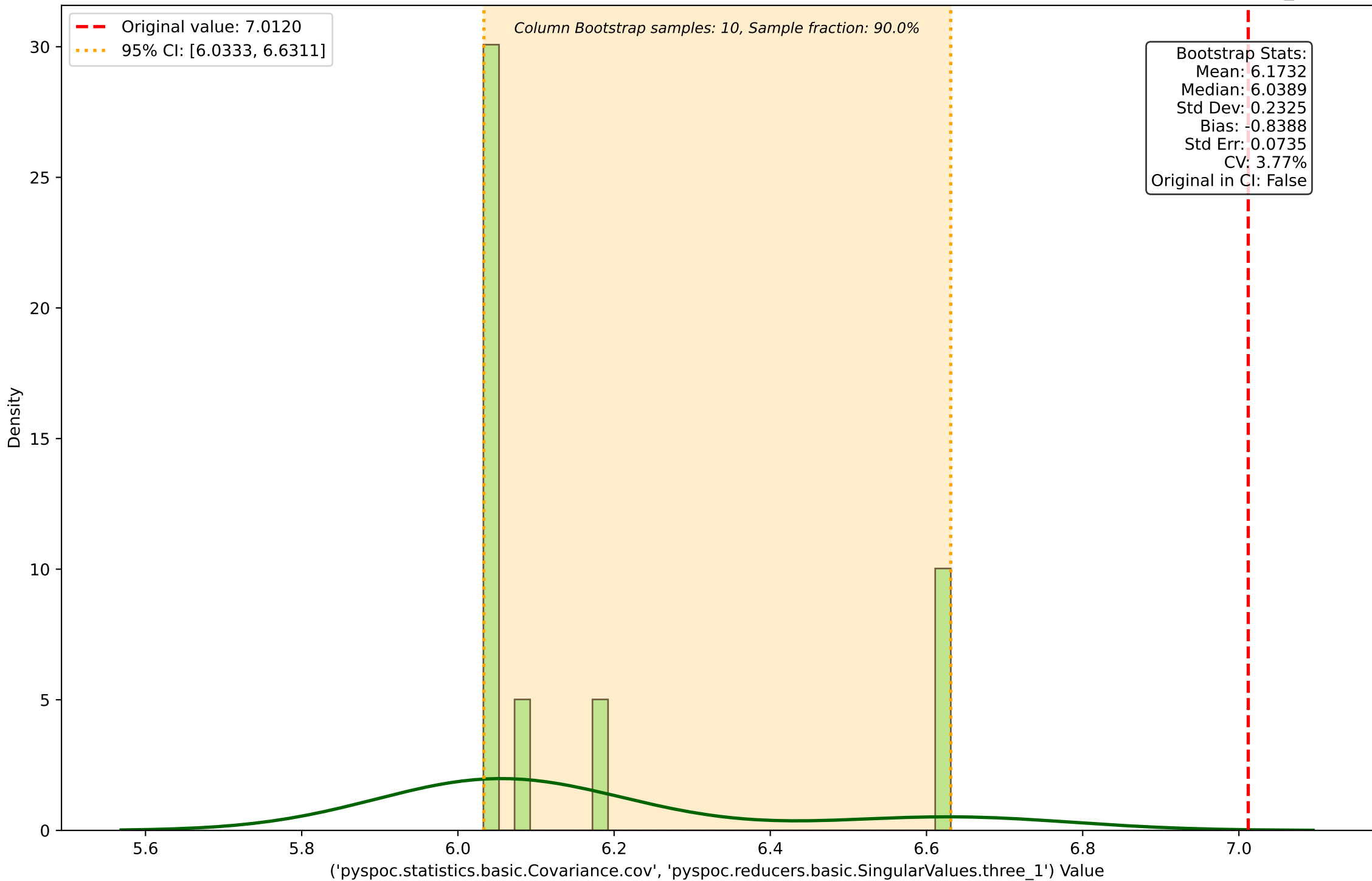Row Bootstrap Distribution for ('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_3')

Row Bootstrap samples: 10, Sample fraction: 90.0%

Legend:
- Original value: 0.3099
- 95% CI: [0.2997, 0.3435]

Bootstrap stats
Mean: 0.3219
Median: 0.3258
Std Dev: 0.0152
Std Err: 0.0048
Bias: 0.0121
CV: 4.72%
Original in CI: True

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

Legend:
- Original value: 7.0120
- 95% CI: [6.0333, 6.6311]

Column Bootstrap samples: 10, Sample fraction: 90.0%

Bootstrap Stats:
Mean: 6.1732
Median: 6.0389
Std Dev: 0.2325
Bias: -0.8388
Std Err: 0.0735
CV: 3.77%
Original in CI: False

X-axis: ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_1') Value
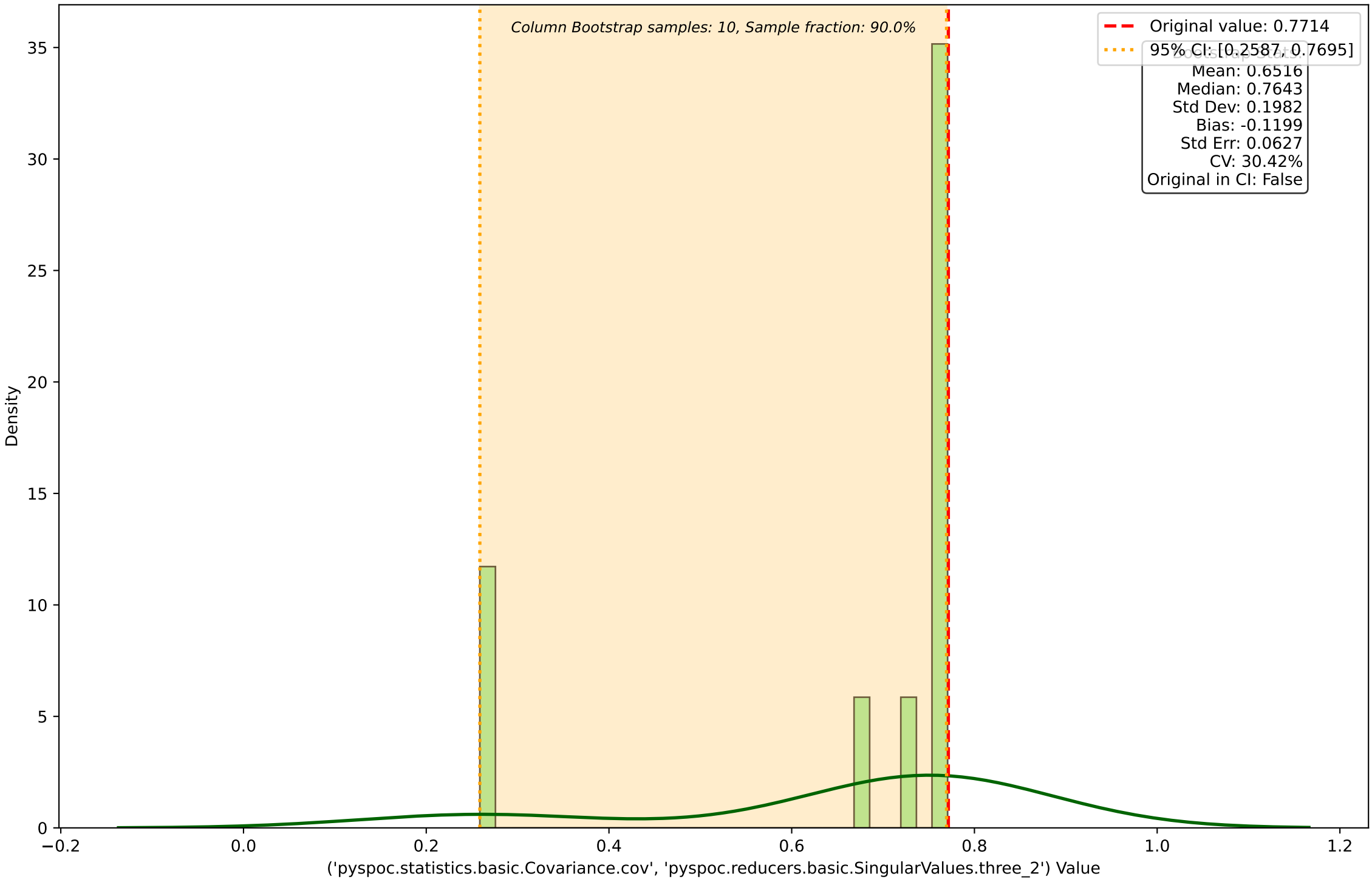
Y-axis: Density

Column Bootstrap Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_2')
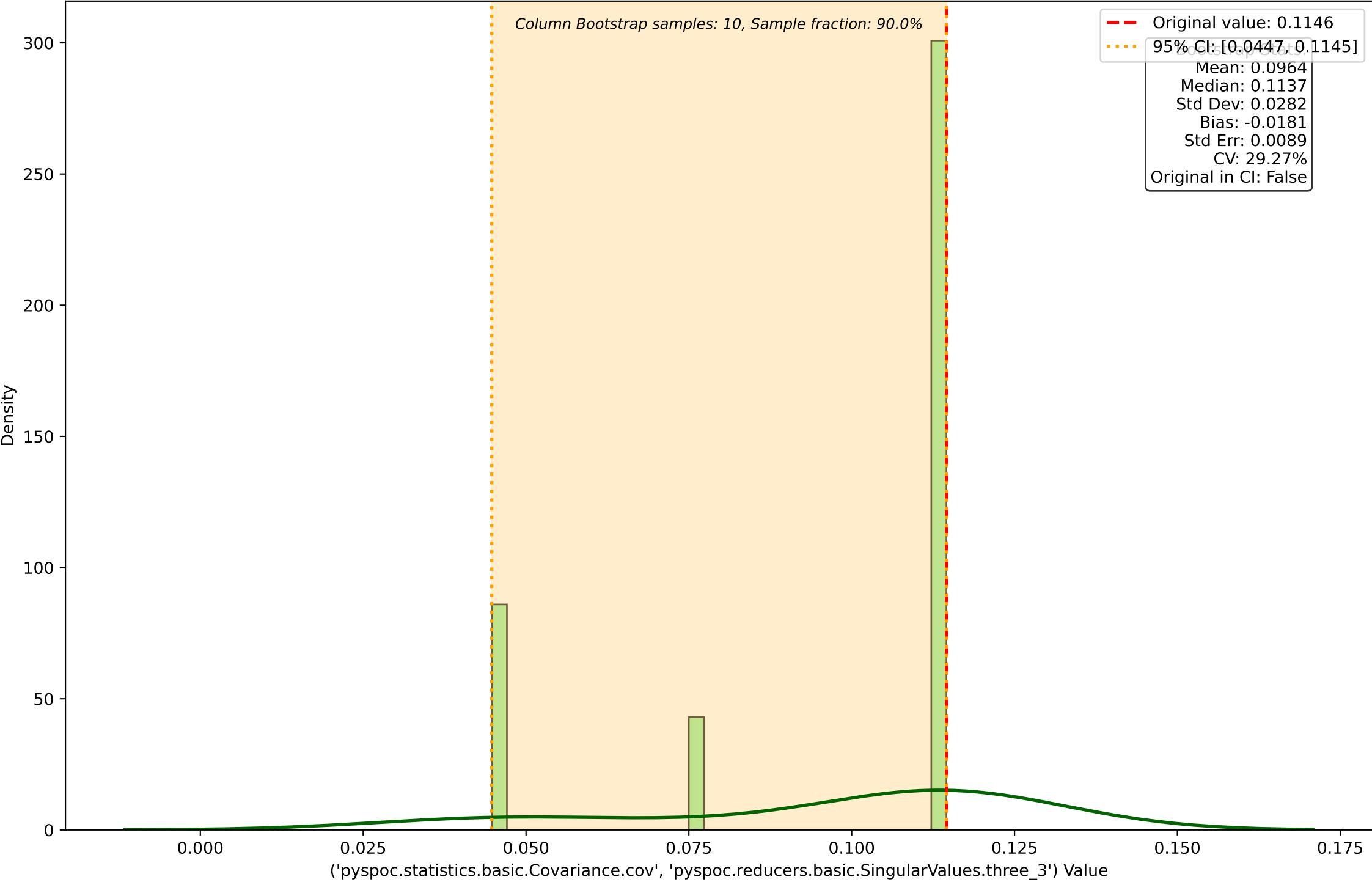
Column Bootstrap Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_3')
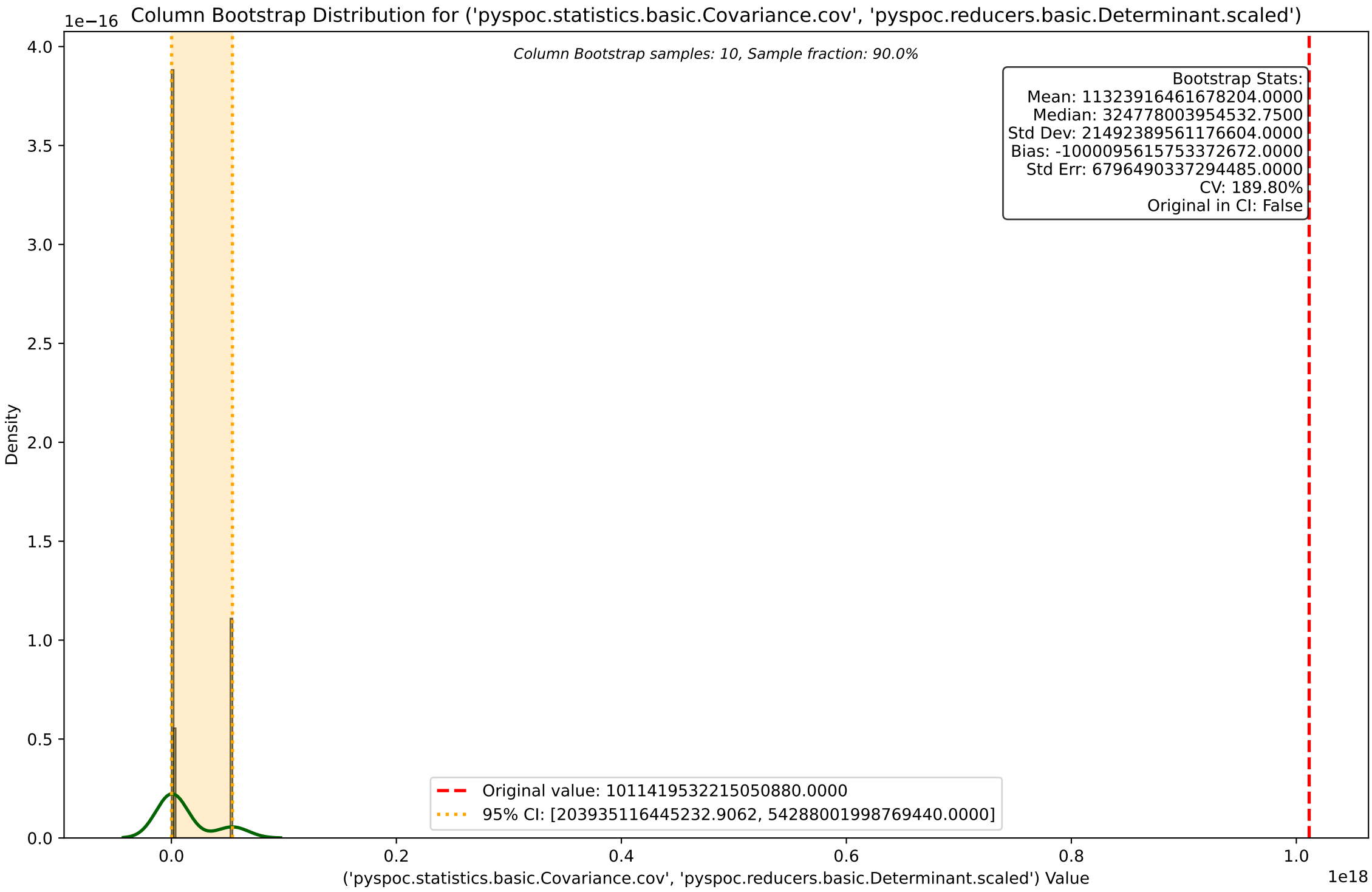
Column Bootstrap samples: 10, Sample fraction: 90.0%

Legend:
- Original value: 0.1146
- 95% CI: [0.0447, 0.1145]
- Mean: 0.0964
- Median: 0.1137
- Std Dev: 0.0282
- Bias: -0.0181
- Std Err: 0.0089
- CV: 29.27%
- Original in CI: False

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

Column Bootstrap samples: 10, Sample fraction: 90.0%

Bootstrap Stats:
Mean: 11323916461678204.0000
Median: 324778003954532.7500
Std Dev: 21492389561176604.0000
Bias: -1000095615753372672.0000
Std Err: 6796490337294485.0000
CV: 189.80%
Original in CI: False

Density

Original value: 1011419532215050880.0000
95% CI: [203935116445232.9062, 54288001998769440.0000]

('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.Determinant.scaled') Value

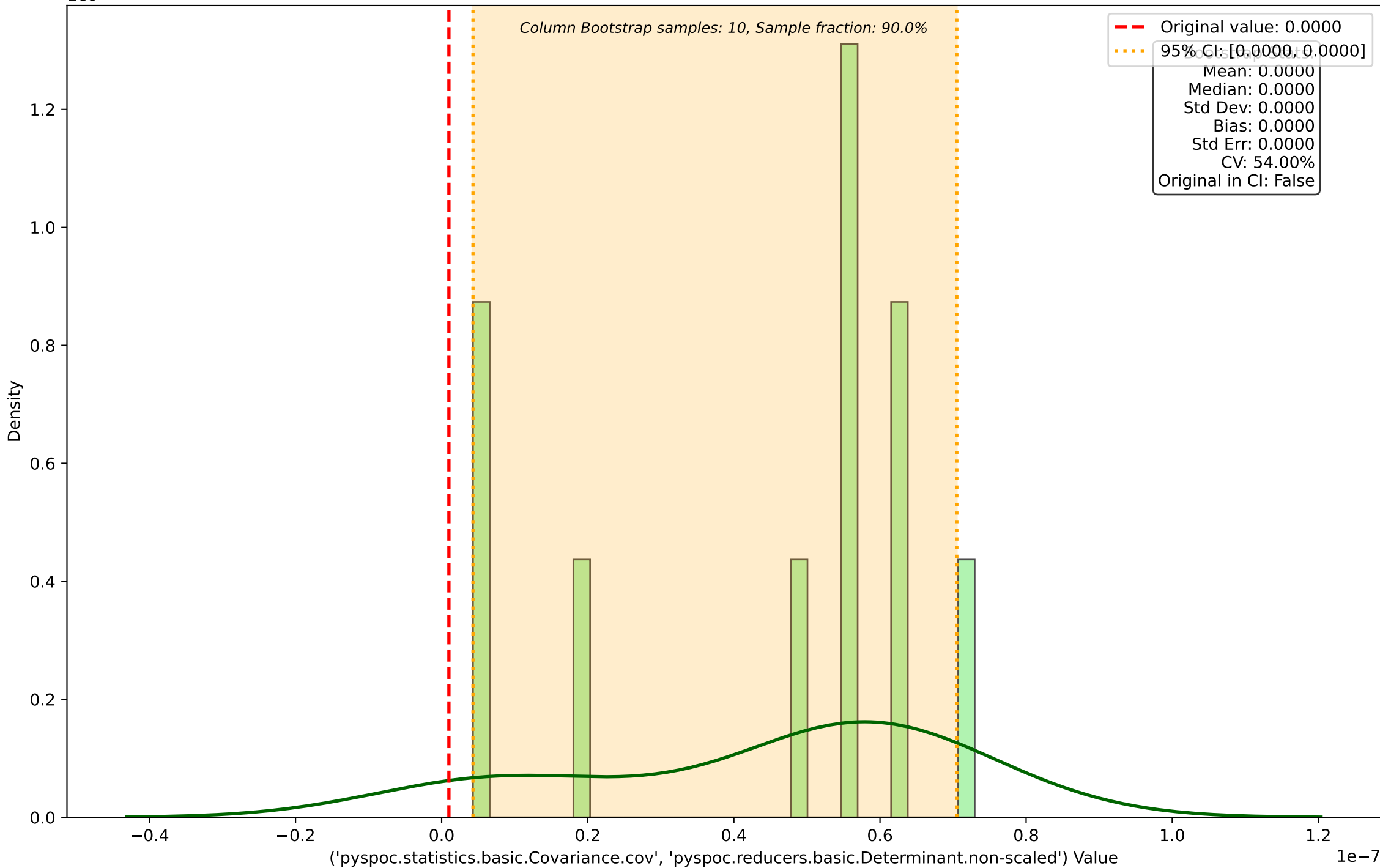Column Bootstrap Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.Determinant.non-scaled')

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

Column Bootstrap samples: 10, Sample fraction: 90.0%

- Original value: 4.9841
- 95% CI: [4.2082, 4.8933]
- Mean: 4.4005
- Median: 4.2506
- Std Dev: 0.2599
- Bias: -0.5836
- Std Err: 0.0822
- CV: 5.91%
- Original in CI: False

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

Column Bootstrap samples: 10, Sample fraction: 90.0%

Legend:
- Original value: 1.0154
- 95% CI: [0.6545, 1.0133]
- Mean: 0.9347
- Median: 1.0084
- Std Dev: 0.1406
- Bias: -0.0806
- Std Err: 0.0445
- CV: 15.04%
- Original in CI: False

X-axis: ('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_2') Value

Y-axis: Density

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

Column Bootstrap samples: 10, Sample fraction: 90.0%

Legend:
- Original value: 0.5559
- 95% CI: [0.5026, 0.5559]
- Mean: 0.5385
- Median: 0.5496
- Std Dev: 0.0209
- Bias: -0.0175
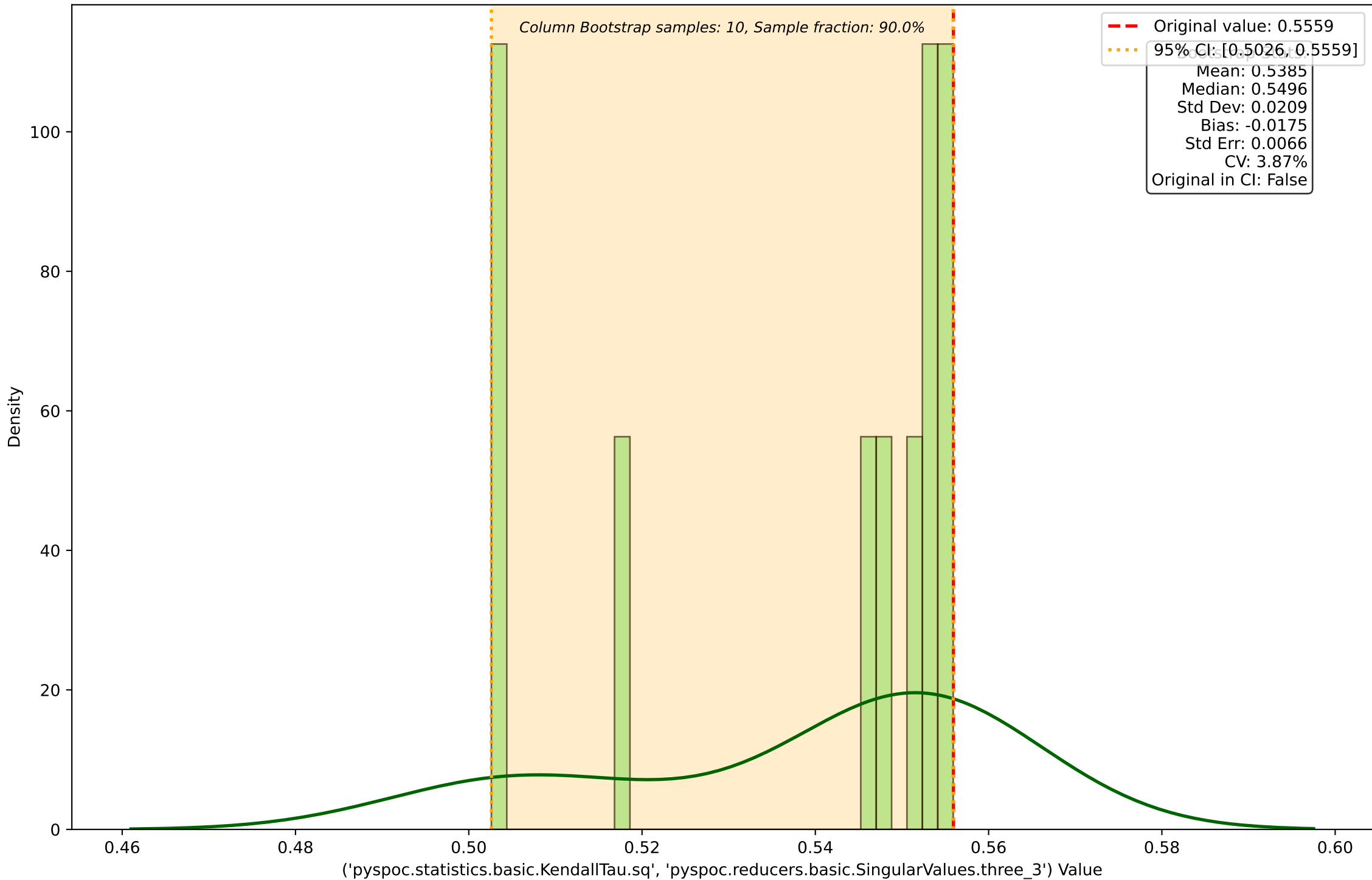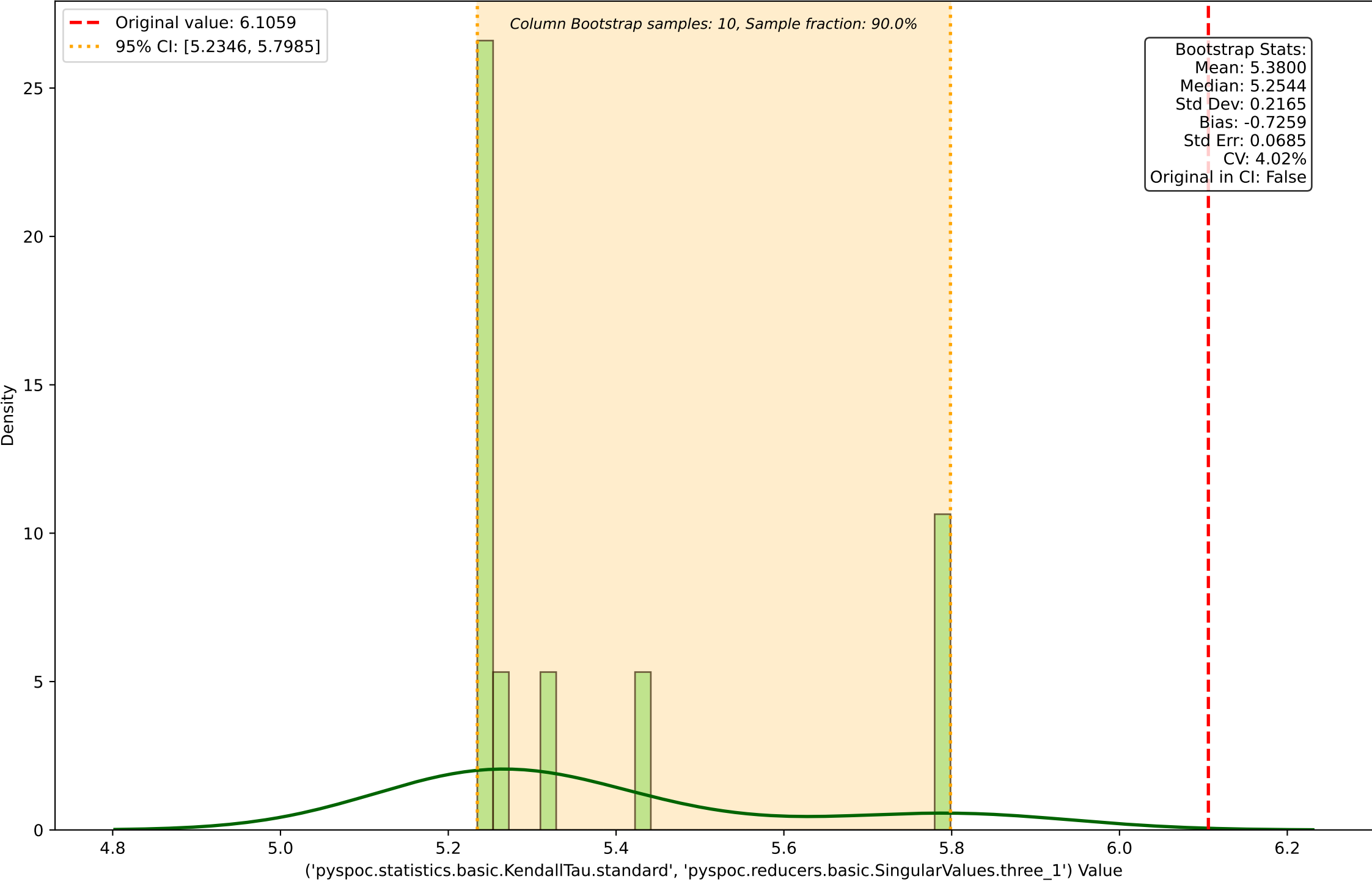- Std Err: 0.0066
- CV: 3.87%
- Original in CI: False

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

Column Bootstrap samples: 10, Sample fraction: 90.0%

- - Original value: 6.1059
- 95% CI: [5.2346, 5.7985]

Bootstrap Stats:
Mean: 5.3800
Median: 5.2544
Std Dev: 0.2165
Bias: -0.7259
Std Err: 0.0685
CV: 4.02%
Original in CI: False

Density

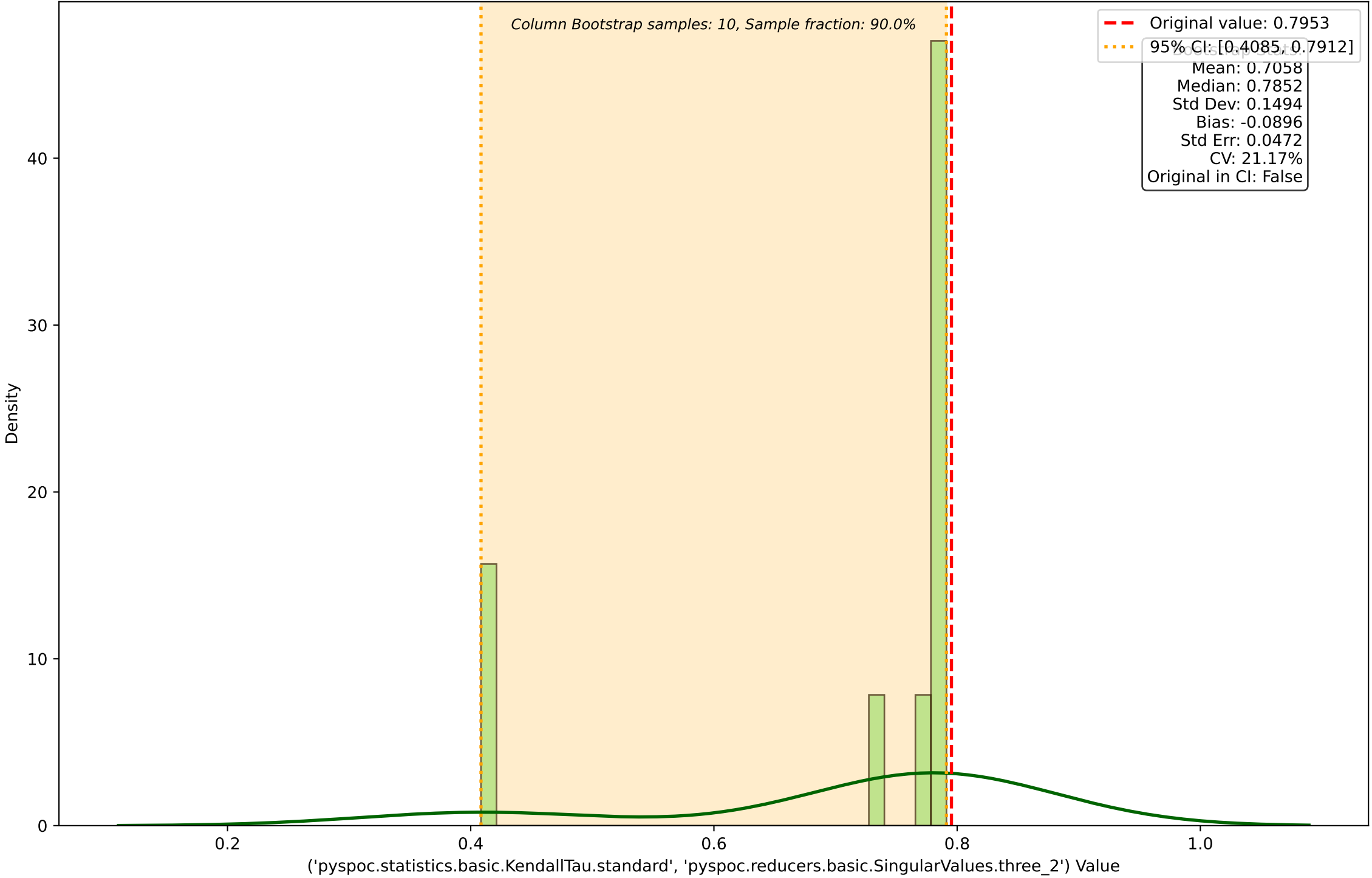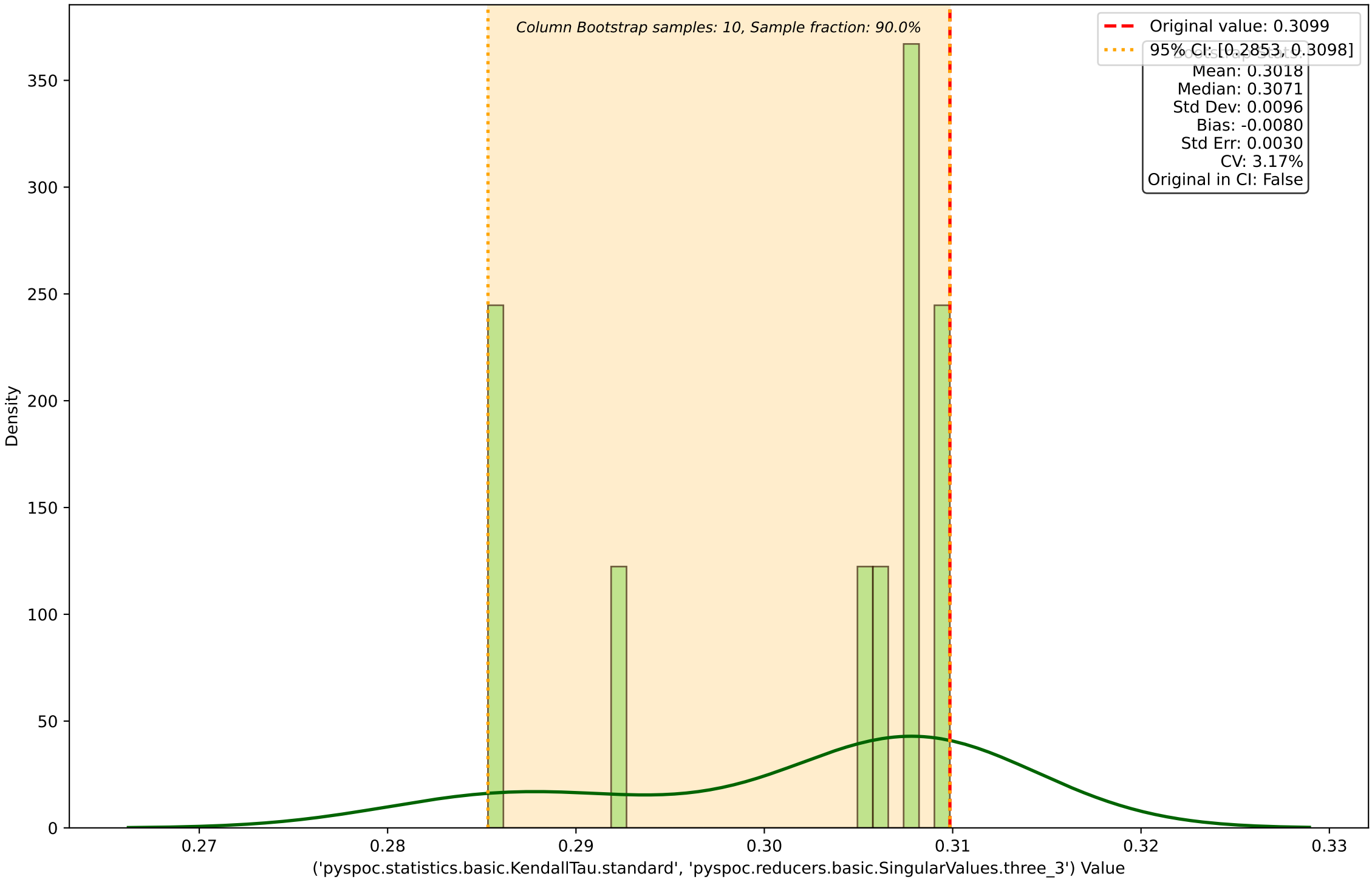('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_1') Value

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

Column Bootstrap samples: 10, Sample fraction: 90.0%

- - - Original value: 0.7953
· · · 95% CI: [0.4085, 0.7912]
Bootstrap Stats
Mean: 0.7058
Median: 0.7852
Std Dev: 0.1494
Bias: -0.0896
Std Err: 0.0472
CV: 21.17%
Original in CI: False

Density

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

Column Bootstrap Distribution for ('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_3')
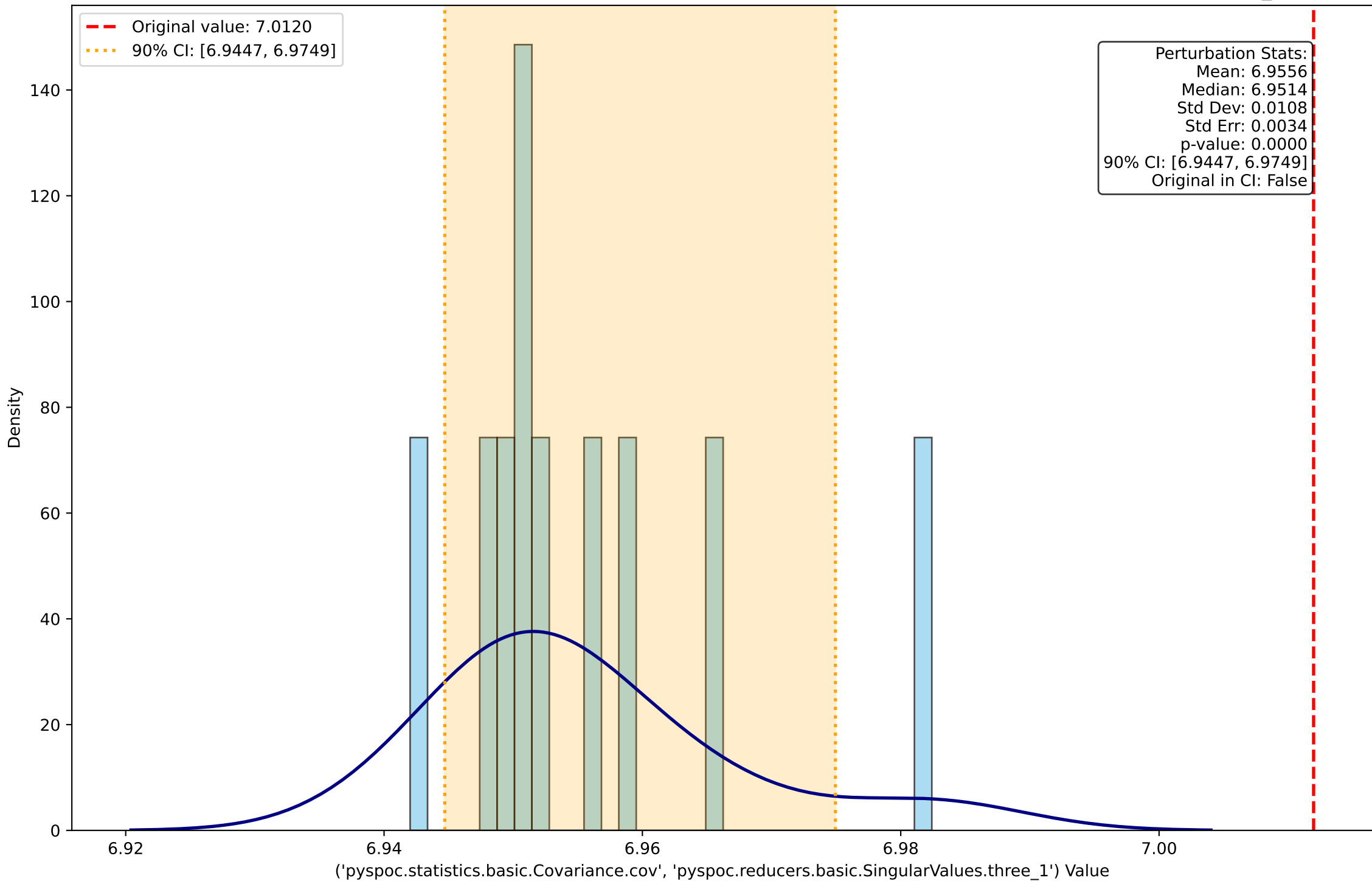
Perturbation Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_1')

Original value: 7.0120
90% CI: [6.9447, 6.9749]

Perturbation Stats:
Mean: 6.9556
Median: 6.9514
Std Dev: 0.0108
Std Err: 0.0034
p-value: 0.0000
90% CI: [6.9447, 6.9749]
Original in CI: False

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

Legend:
- Original value: 0.7714
- 90% CI: [0.7590, 0.7828]
- Mean: 0.7742
- Median: 0.7758
- Std Dev: 0.0090
- Std Err: 0.0029
- p-value: 0.4000
- 90% CI: [0.7590, 0.7828]
- Original in CI: True

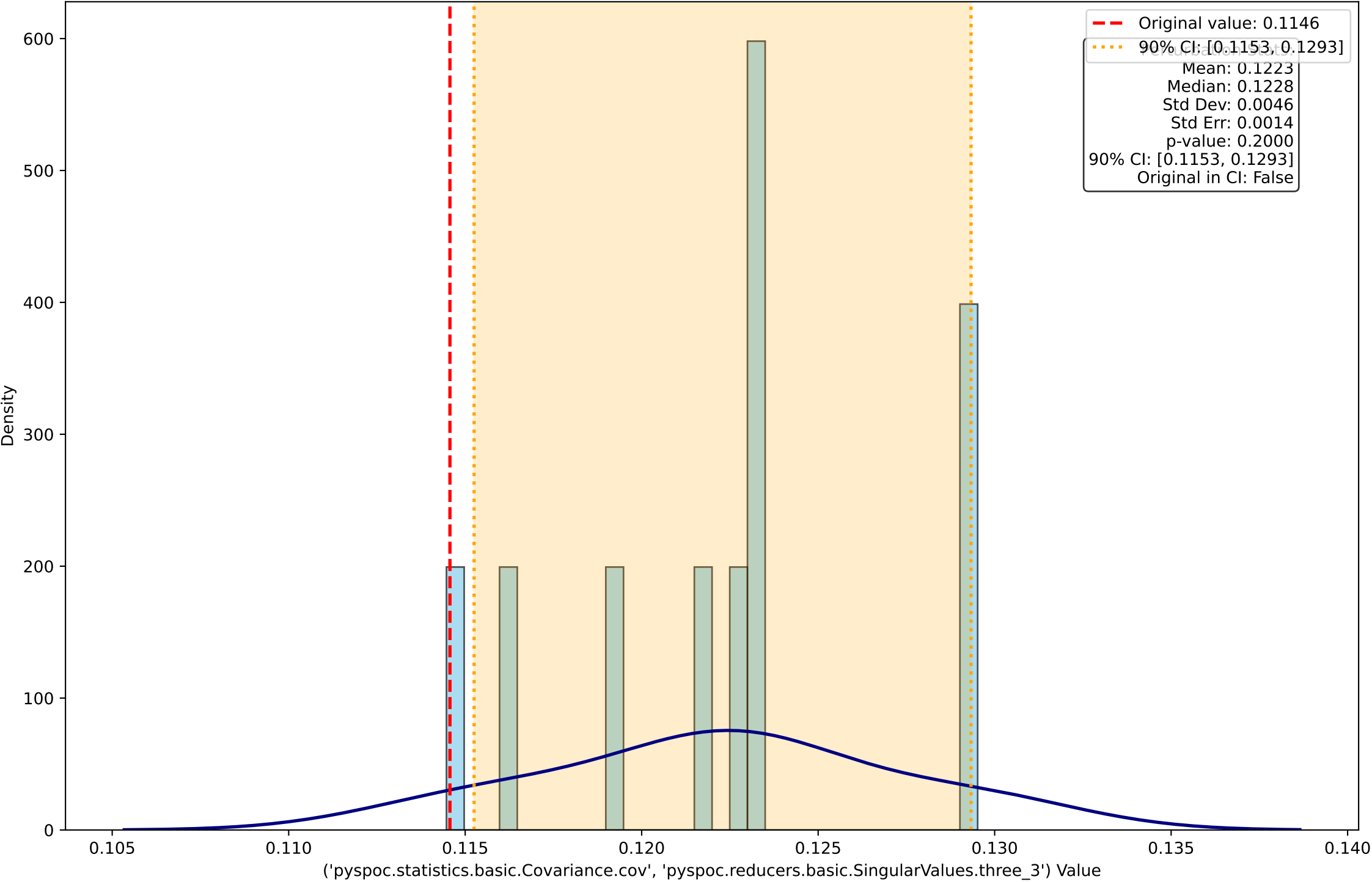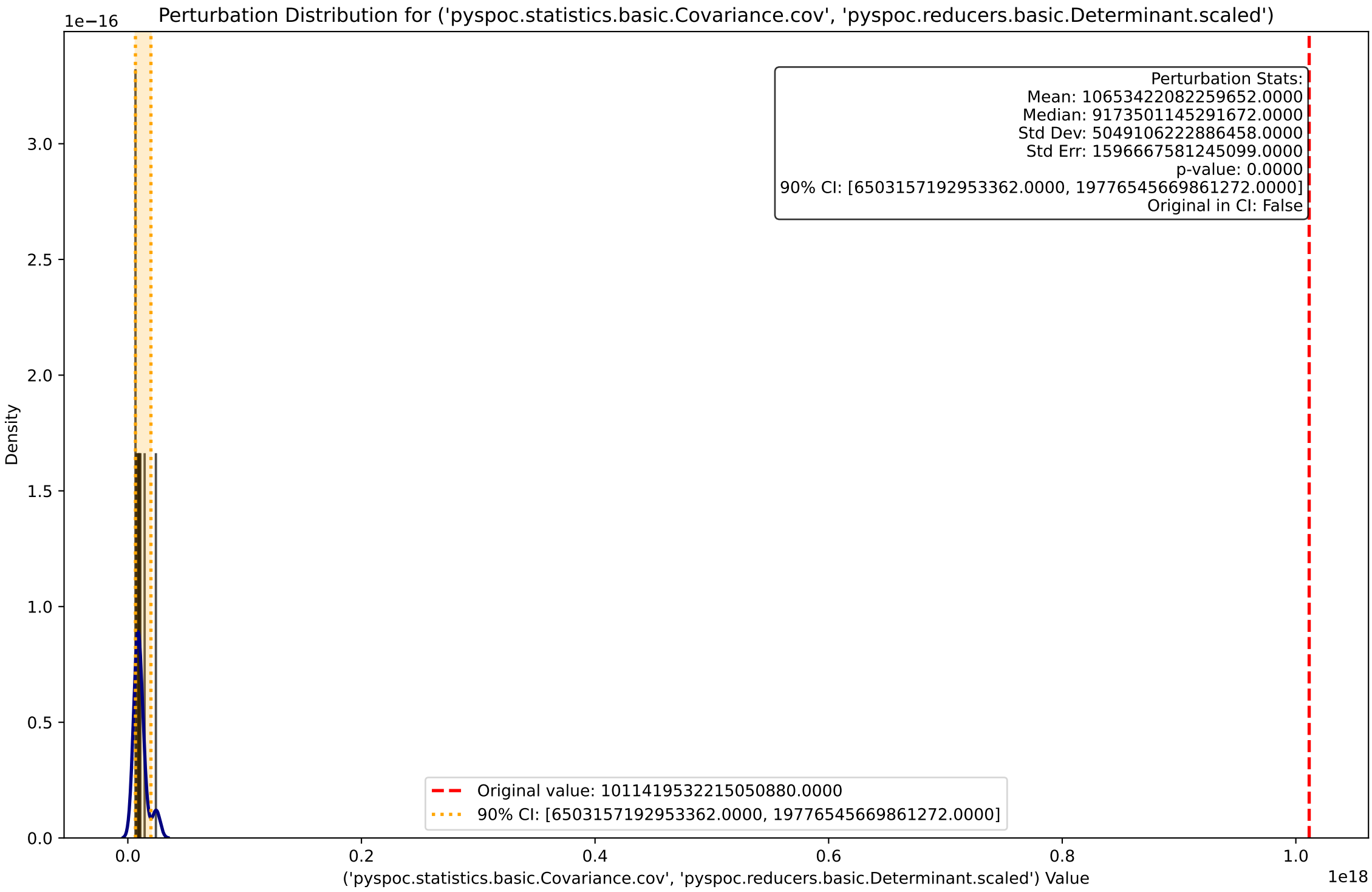![Perturbation Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_3')](image)

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

Legend:
- Original value: 0.1146
- 90% CI: [0.1153, 0.1293]
- Mean: 0.1223
- Median: 0.1228
- Std Dev: 0.0046
- Std Err: 0.0014
- p-value: 0.2000
- 90% CI: [0.1153, 0.1293]
- Original in CI: False

X-axis: ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.SingularValues.three_3') Value

Y-axis: Density

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

Perturbation Stats:
Mean: 10653422082259652.0000
Median: 9173501145291672.0000
Std Dev: 5049106222886458.0000
Std Err: 1596667581245099.0000
p-value: 0.0000
90% CI: [6503157192953362.0000, 19776545669861272.0000]
Original in CI: False

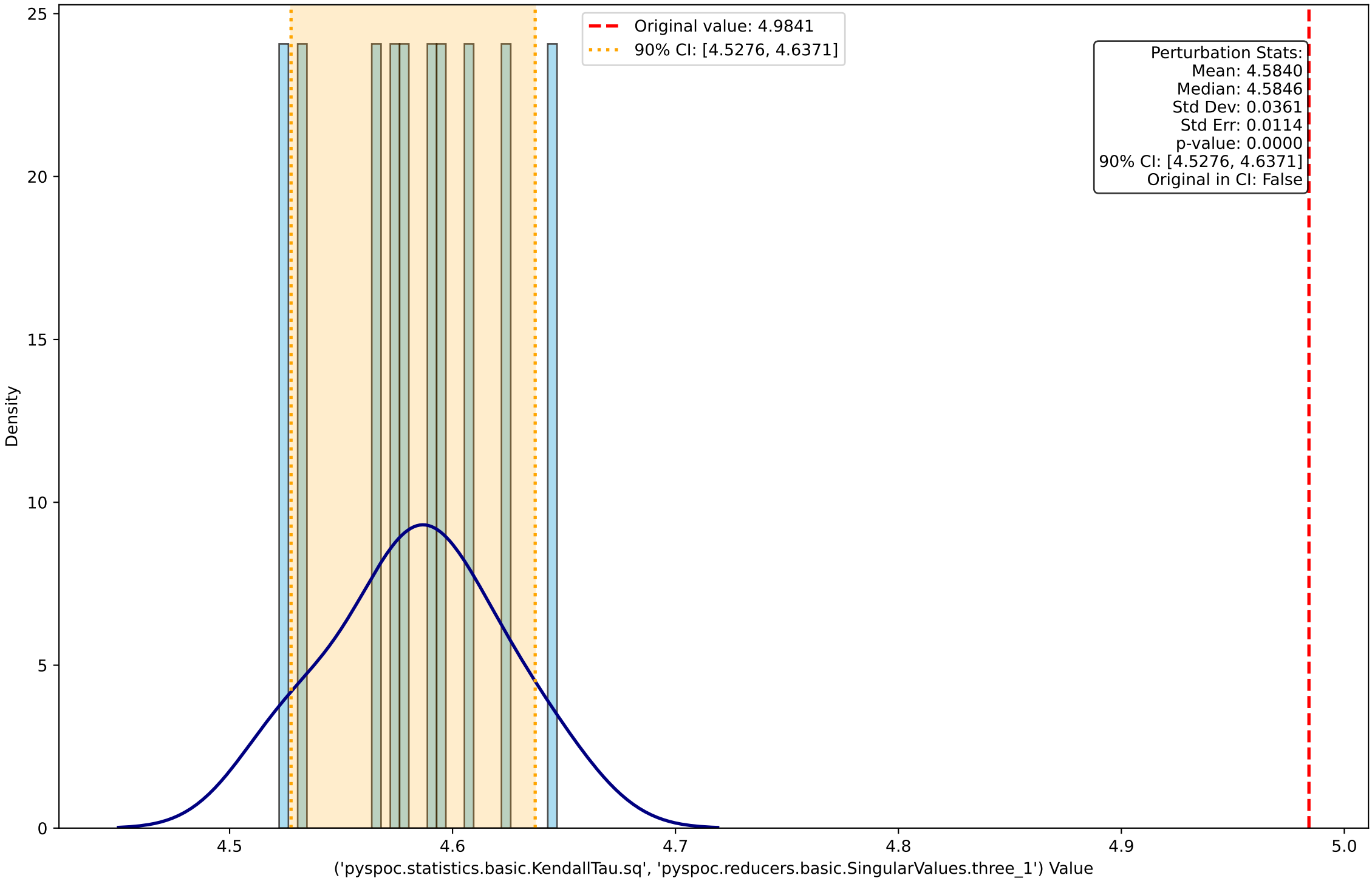Original value: 1011419532215050880.0000
90% CI: [6503157192953362.0000, 19776545669861272.0000]
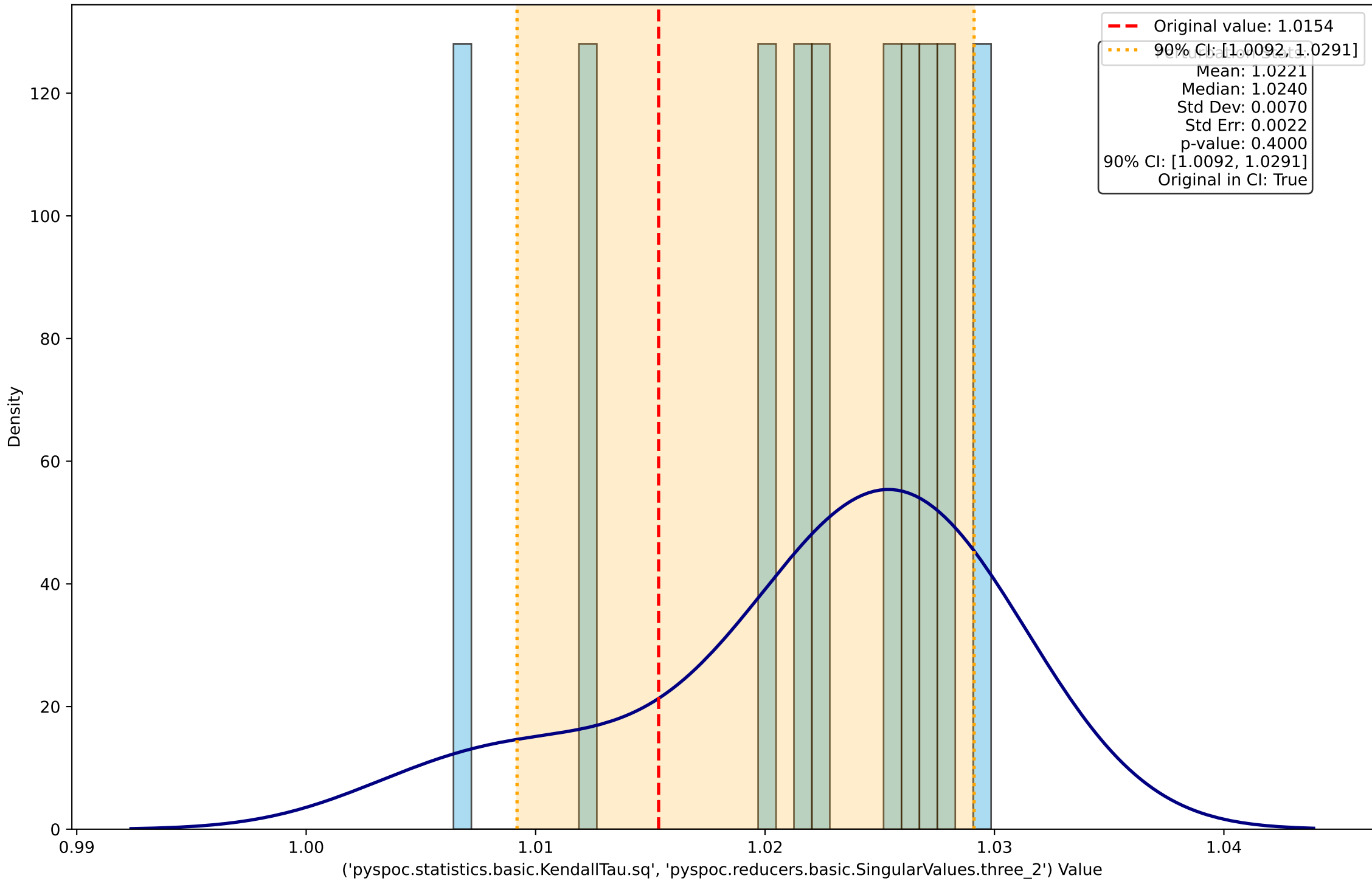
Perturbation Distribution for ('pyspoc.statistics.basic.Covariance.cov', 'pyspoc.reducers.basic.Determinant.non-scaled')

- Original value: 0.0000
- 90% CI: [0.0000, 0.0000]
  Mean: 0.0000
  Median: 0.0000
  Std Dev: 0.0000
  Std Err: 0.0000
  p-value: 0.0000
  90% CI: [0.0000, 0.0000]
  Original in CI: False

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

Legend:
- Original value: 4.9841
- 90% CI: [4.5276, 4.6371]

Perturbation Stats:
Mean: 4.5840
Median: 4.5846
Std Dev: 0.0361
Std Err: 0.0114
p-value: 0.0000
90% CI: [4.5276, 4.6371]
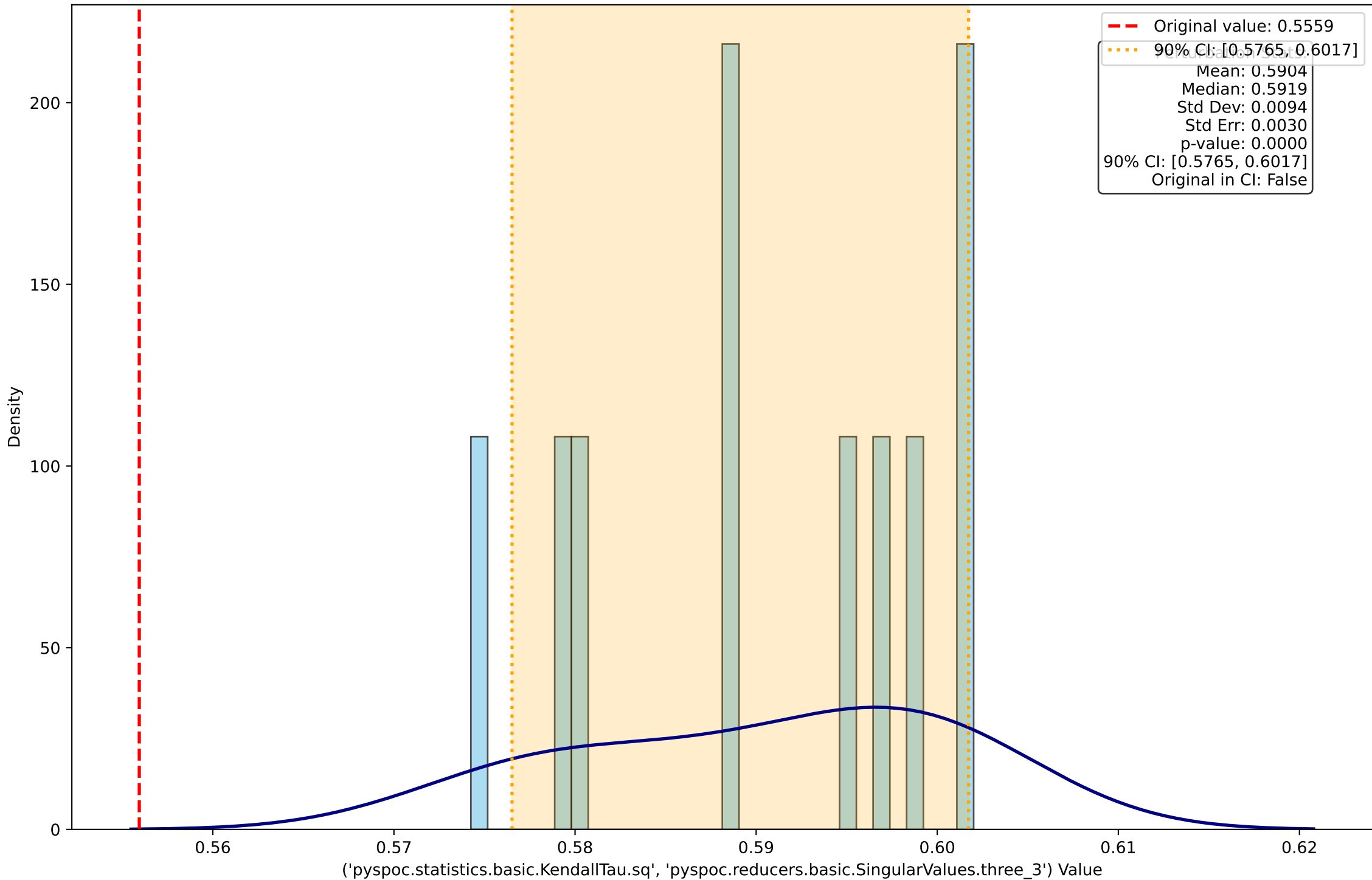Original in CI: False

('pyspoc.statistics.basic.KendallTau.sq', 'pyspoc.reducers.basic.SingularValues.three_1') Value

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

Legend:
- Original value: 1.0154
- 90% CI: [1.0092, 1.0291]
- Mean: 1.0221
- Median: 1.0240
- Std Dev: 0.0070
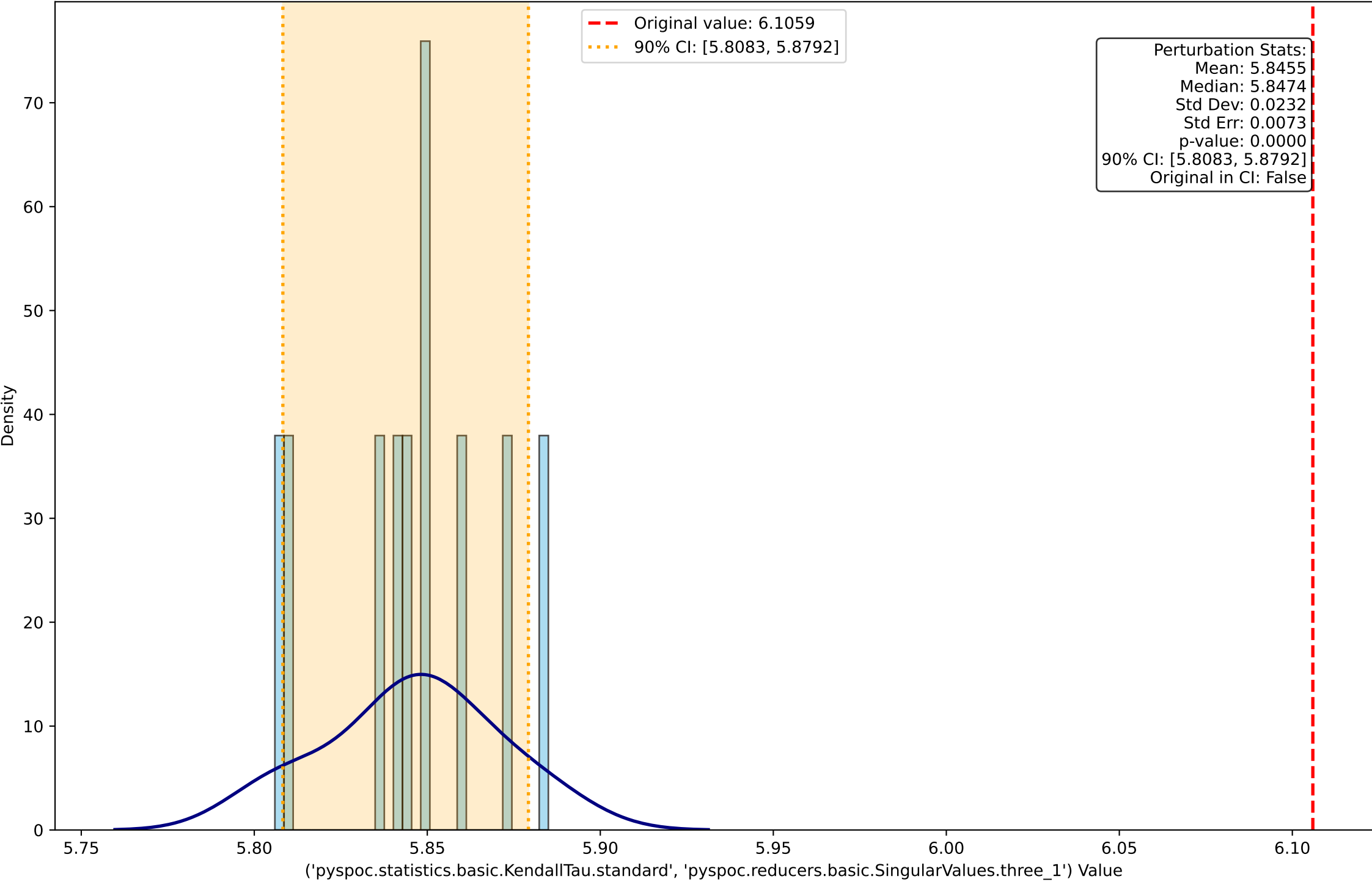- Std Err: 0.0022
- p-value: 0.4000
- 90% CI: [1.0092, 1.0291]
- Original in CI: True

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

- Original value: 0.5559
- 90% CI: [0.5765, 0.6017]
  Mean: 0.5904
  Median: 0.5919
  Std Dev: 0.0094
  Std Err: 0.0030
  p-value: 0.0000
  90% CI: [0.5765, 0.6017]
  Original in CI: False

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

- - - Original value: 6.1059
...... 90% CI: [5.8083, 5.8792]

Perturbation Stats:
Mean: 5.8455
Median: 5.8474
Std Dev: 0.0232
Std Err: 0.0073
p-value: 0.0000
90% CI: [5.8083, 5.8792]
Original in CI: False

Density

('pyspoc.statistics.basic.KendallTau.standard', 'pyspoc.reducers.basic.SingularValues.three_1') Value

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')
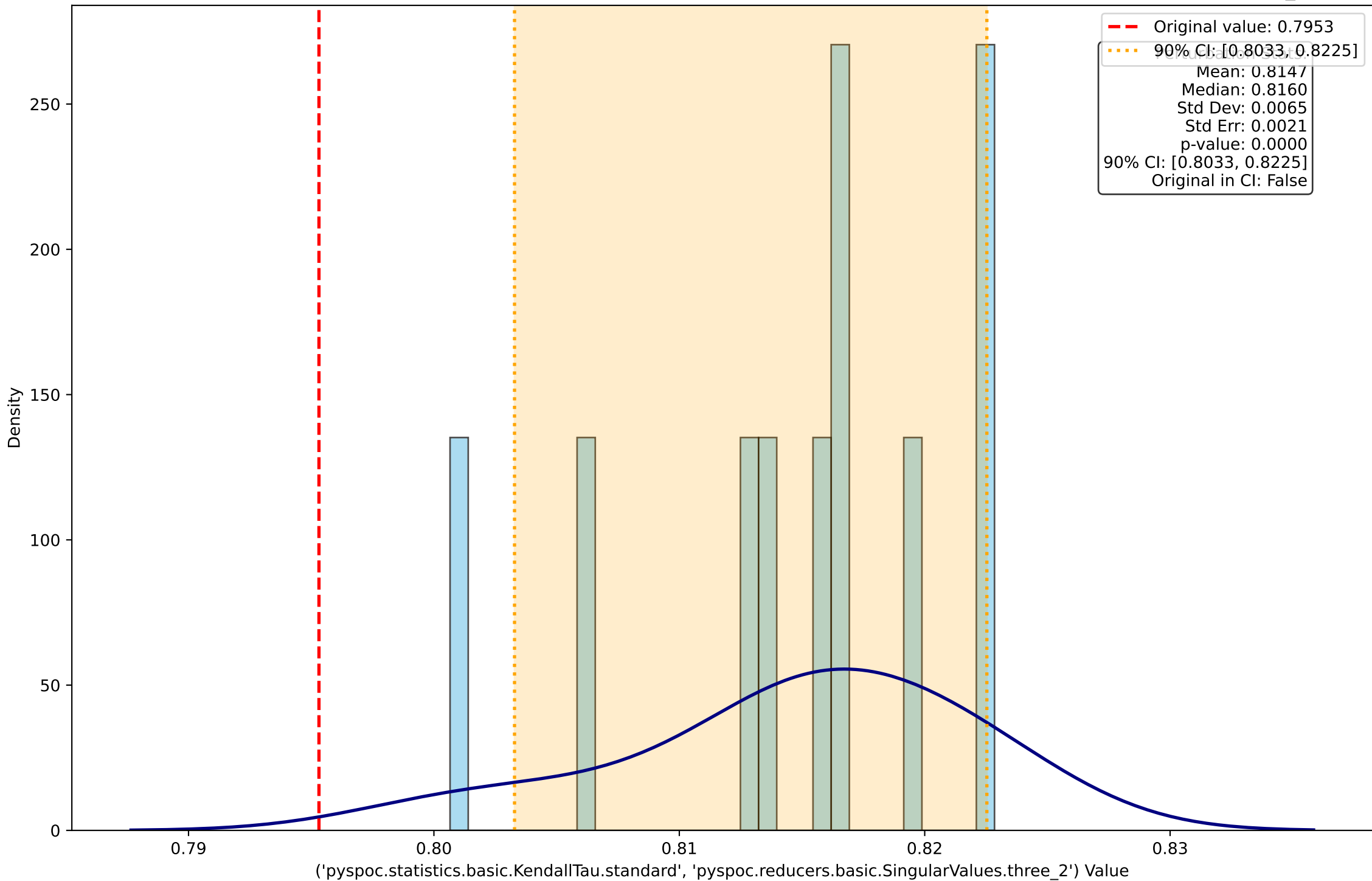
Legend:
- Original value: 0.3099
- 90% CI: [0.3242, 0.3457]
- Mean: 0.3366
- Median: 0.3388
- Std Dev: 0.0079
- Std Err: 0.0025
- p-value: 0.0000
- 90% CI: [0.3242, 0.3457]
- Original in CI: False