cibin-demo

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Here we recreate column "3" of Table 1 of the Li and Ding paper.

[1]:
```
import numpy as np
from cibin import tau_twosided_ci

alpha = .05
cases = [(1,1,1,13),
         (2,6,8,0),
         (6,0,11,3),
         (6,4,4,6),
         (1,1,3,19),
         (8,4,5,7)]

print(f"n\t\t\t3")
print(f"-----\t\t\t-----")
for n in cases:
    N = sum(n)
    n11, n10, n01, n00 = n
    ci, _, _ = tau_twosided_ci(n11, n10, n01, n00, alpha, exact=(N<20))
    print(f"{n}\t\t{N*np.array(ci)}")
```

```
n                       3
-----                   -----
(1, 1, 1, 13)           [-1. 14.]
(2, 6, 8, 0)            [-14.  -5.]
(6, 0, 11, 3)           [-4.  8.]
(6, 4, 4, 6)            [-4. 10.]
(1, 1, 3, 19)           [-3. 20.]
(8, 4, 5, 7)            [-3. 13.]
```

The final row is approximate, so it does not exactly match with the paper.