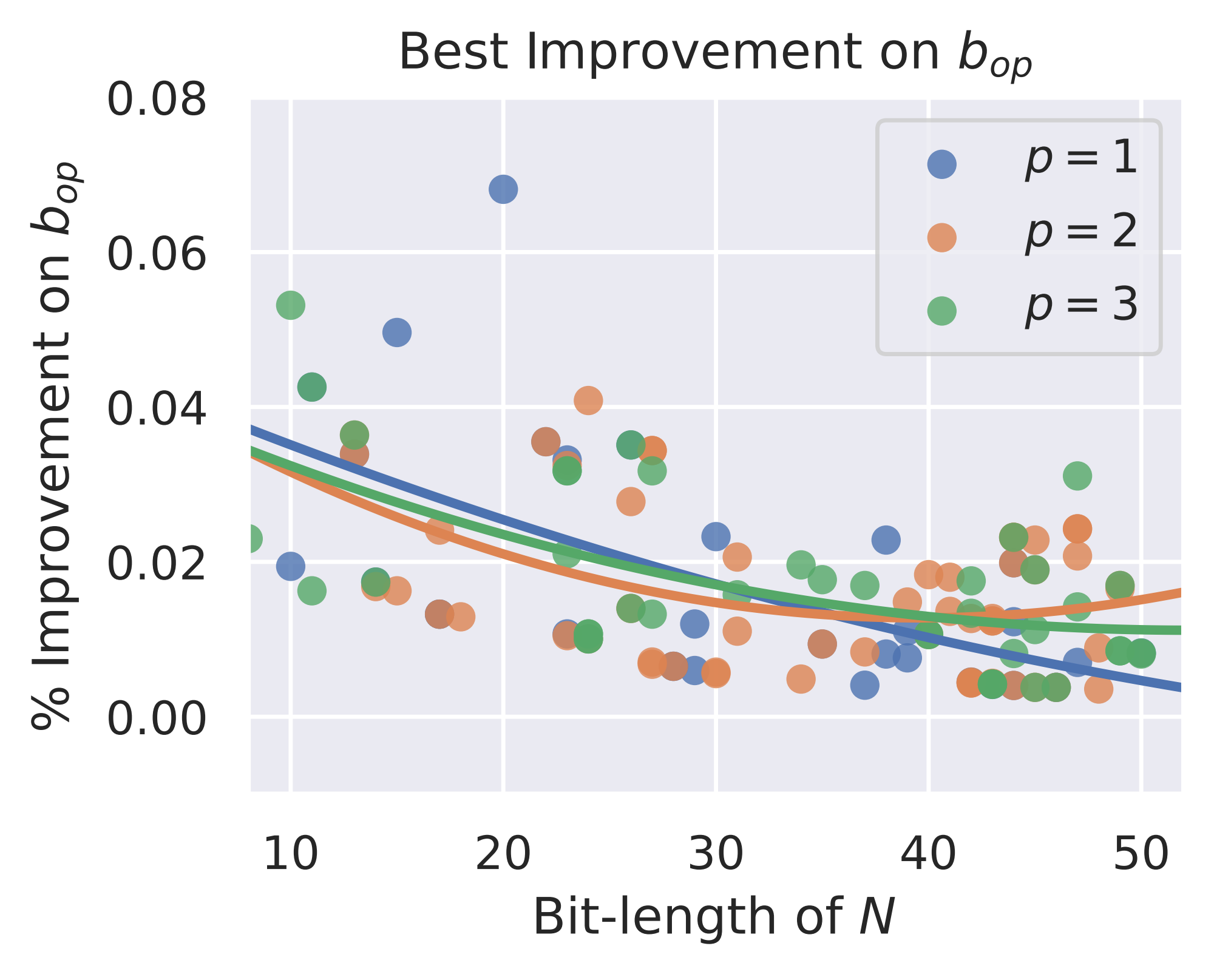
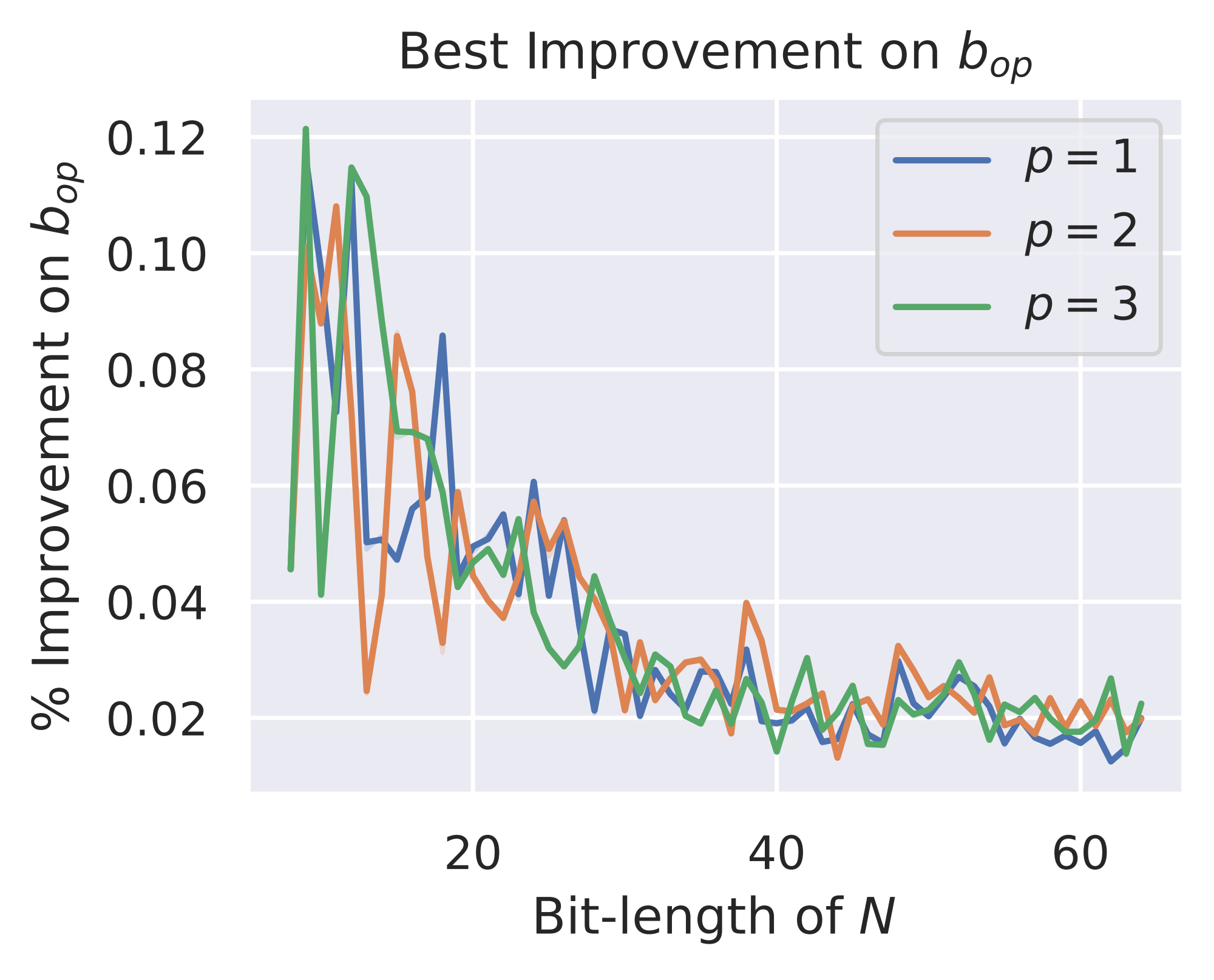
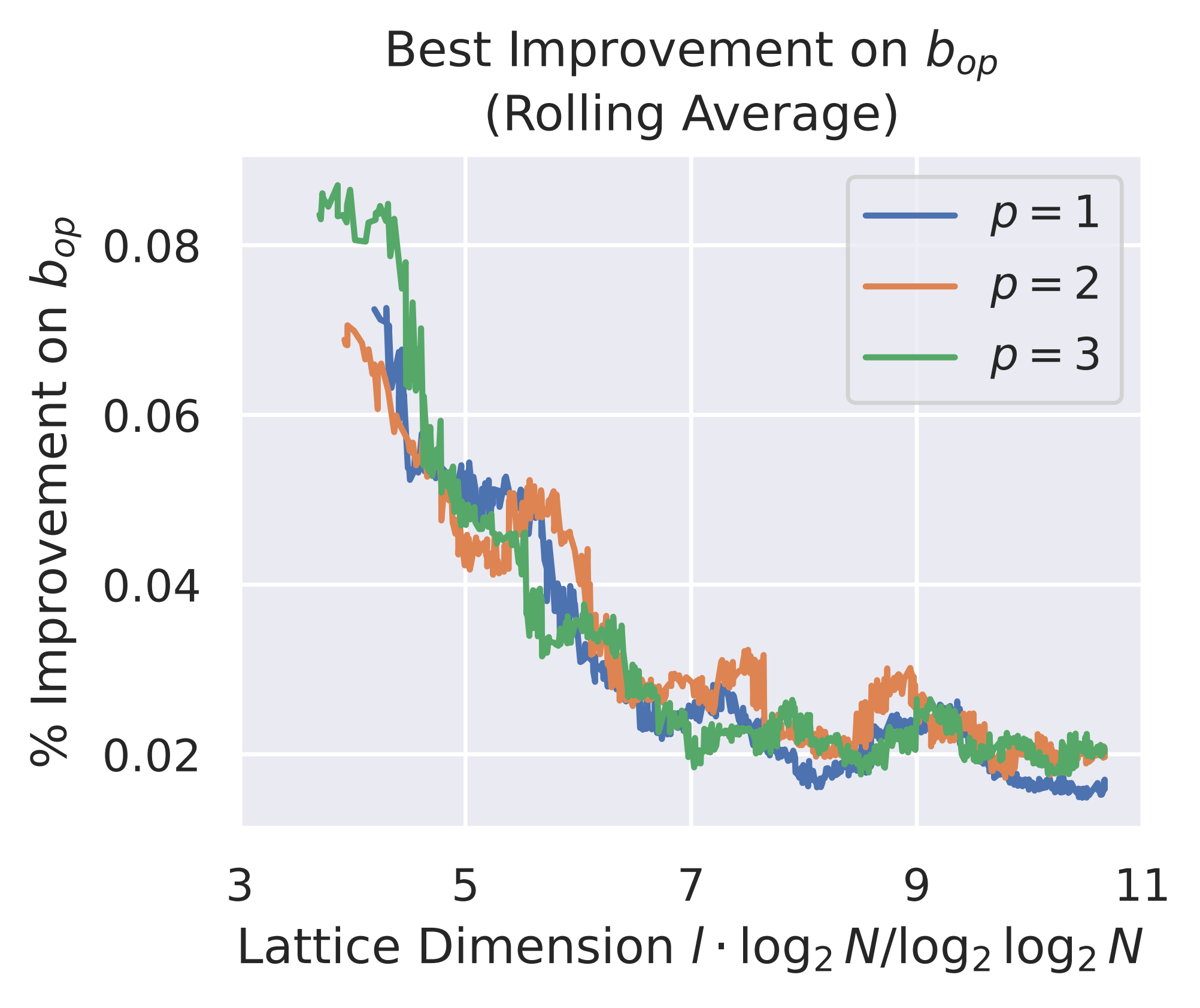
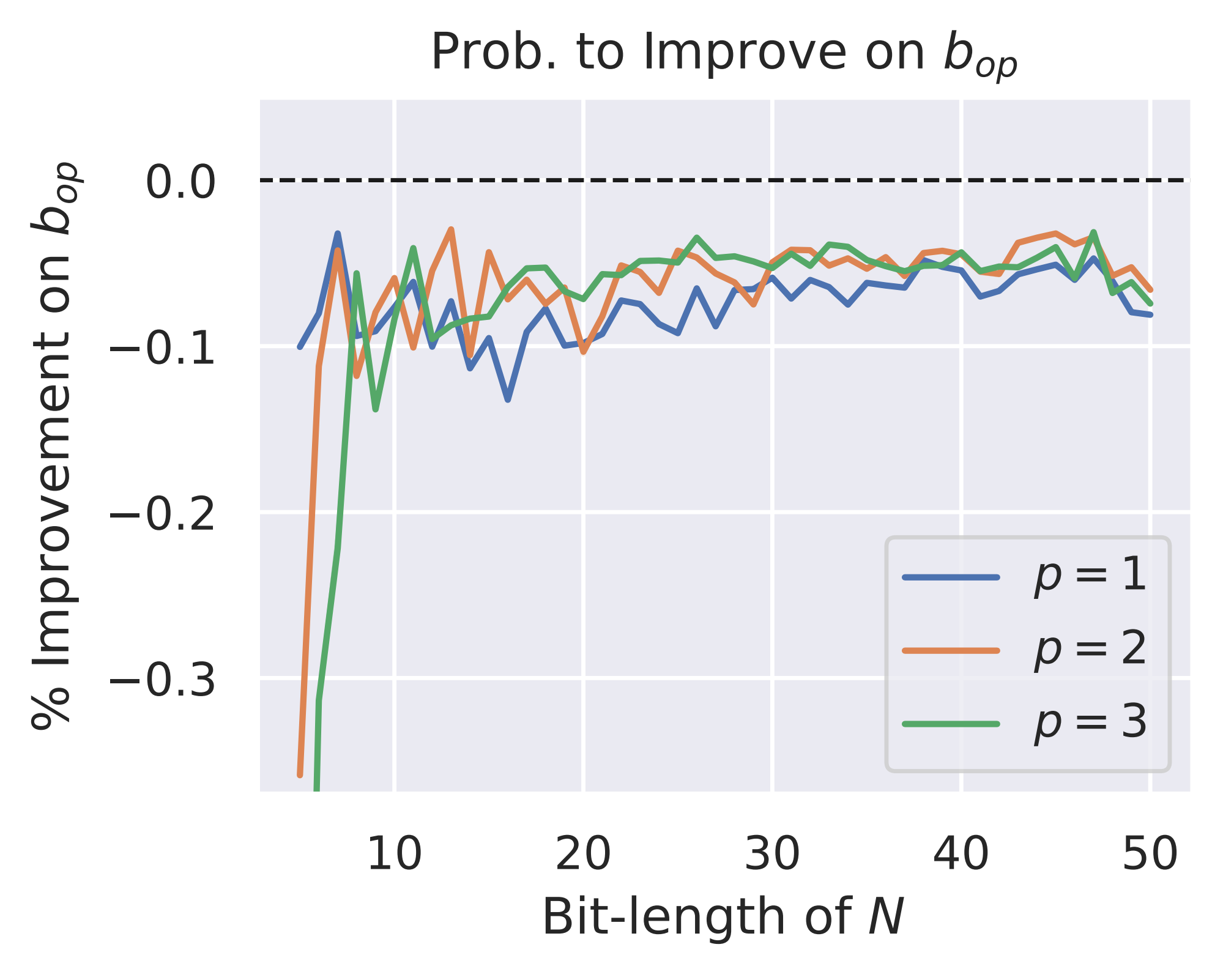
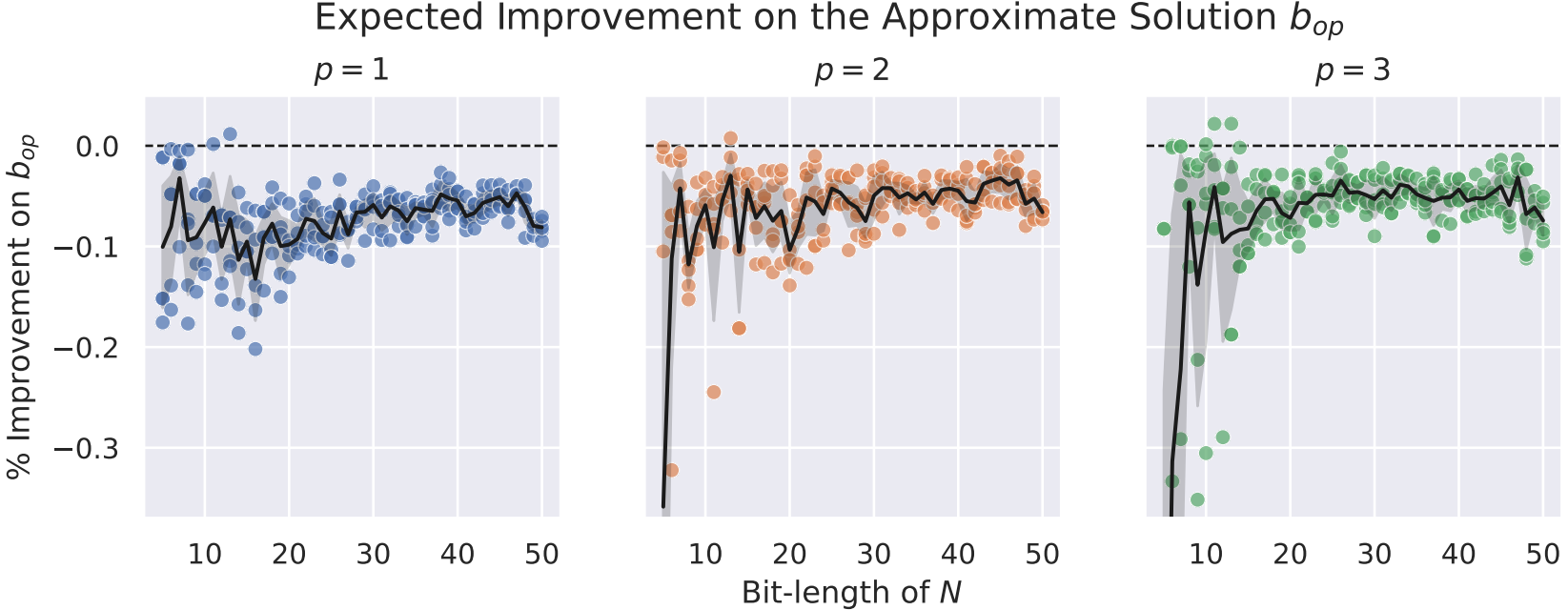
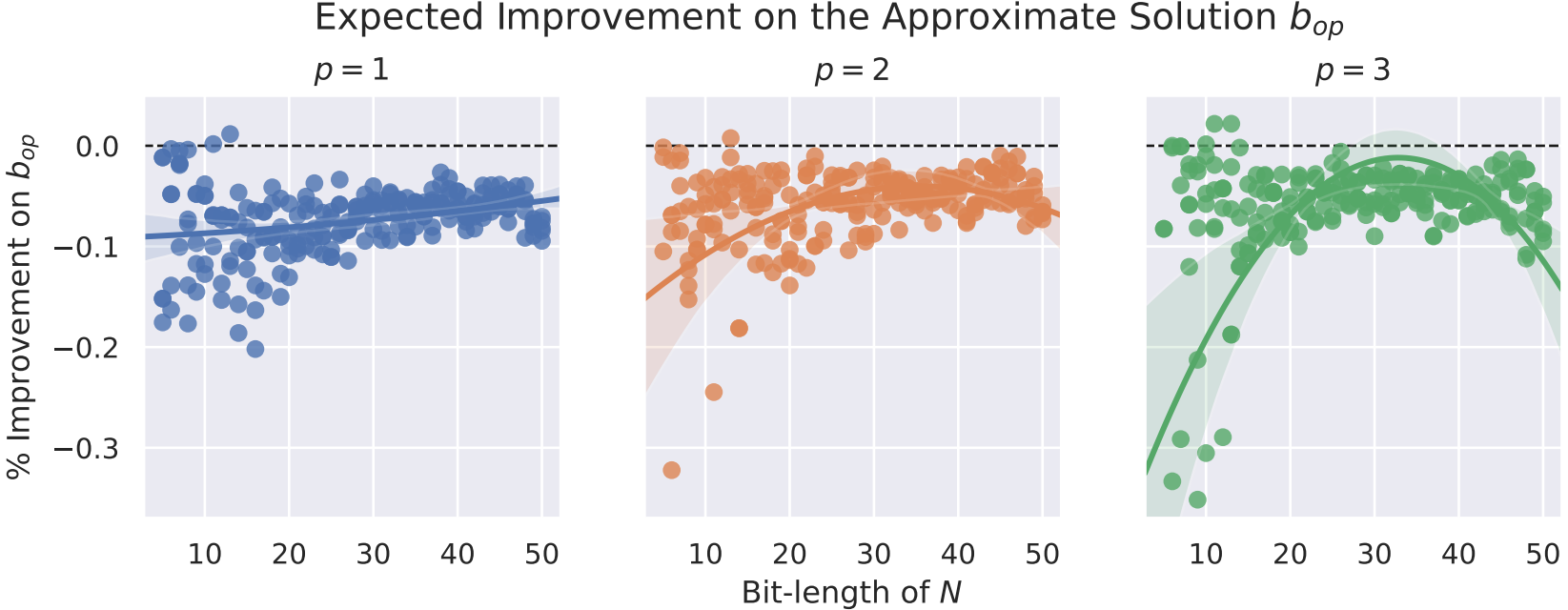

Best Improvement on b_{op}
% Improvement on b_{op}
0.08
0.06
0.04
0.02
0.00
10
20
30
40
50
Bit-length of N
$p = 1$
$p = 2$
$p = 3$

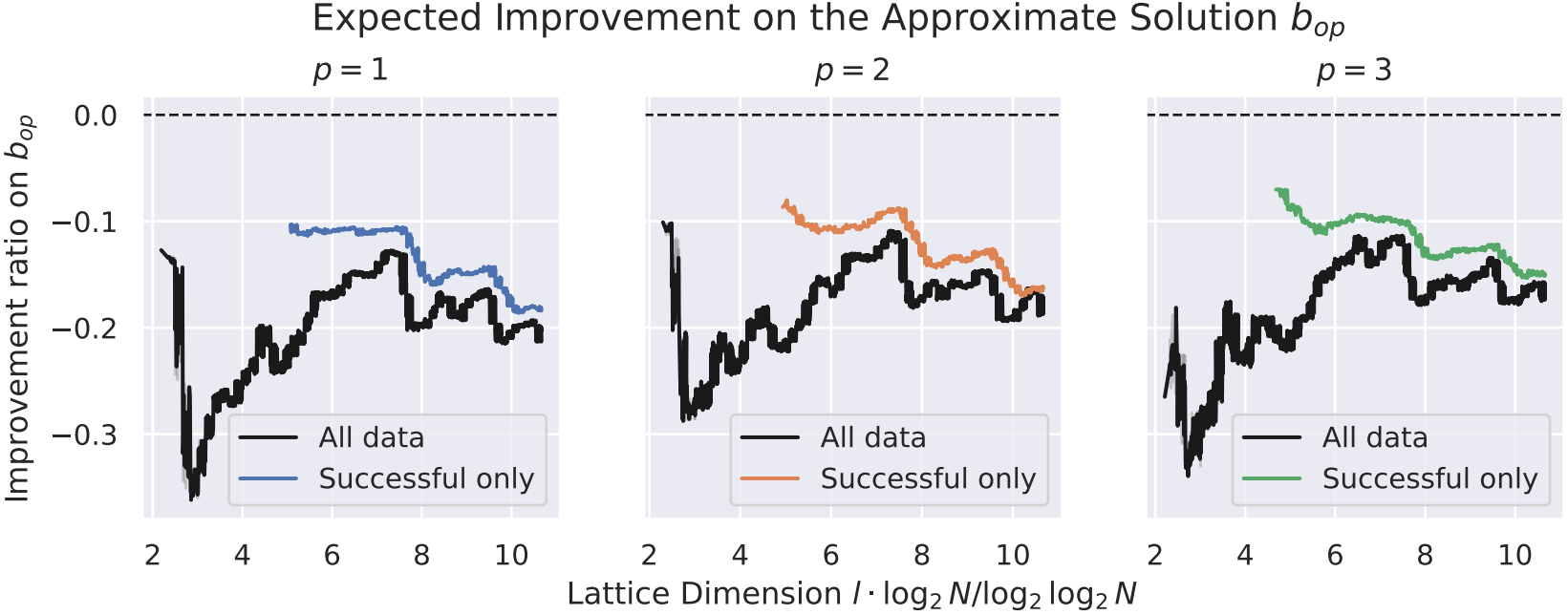

Best Improvement on b_{op}
% Improvement on b_{op}
0.12
0.10
0.08
0.06
0.04
0.02
20
40
60
Bit-length of N
$p = 1$
$p = 2$
$p = 3$

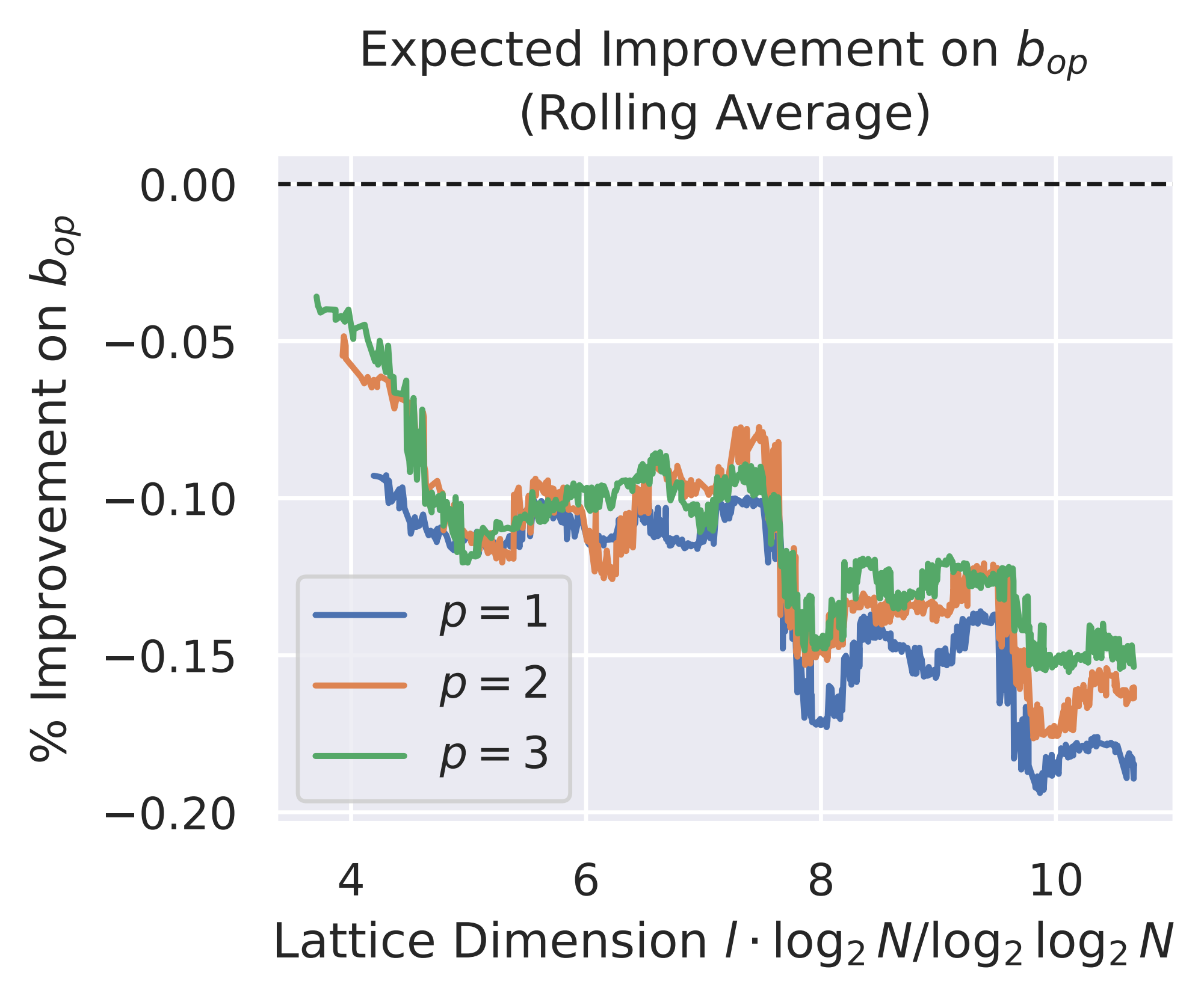

Best Improvement on b_{op}
(Rolling Average)
% Improvement on b_{op}
0.08
0.06
0.04
0.02
$p = 1$
$p = 2$
$p = 3$
3
5
7
9
11
Lattice Dimension $l \cdot \log_2 N / \log_2 \log_2 N$

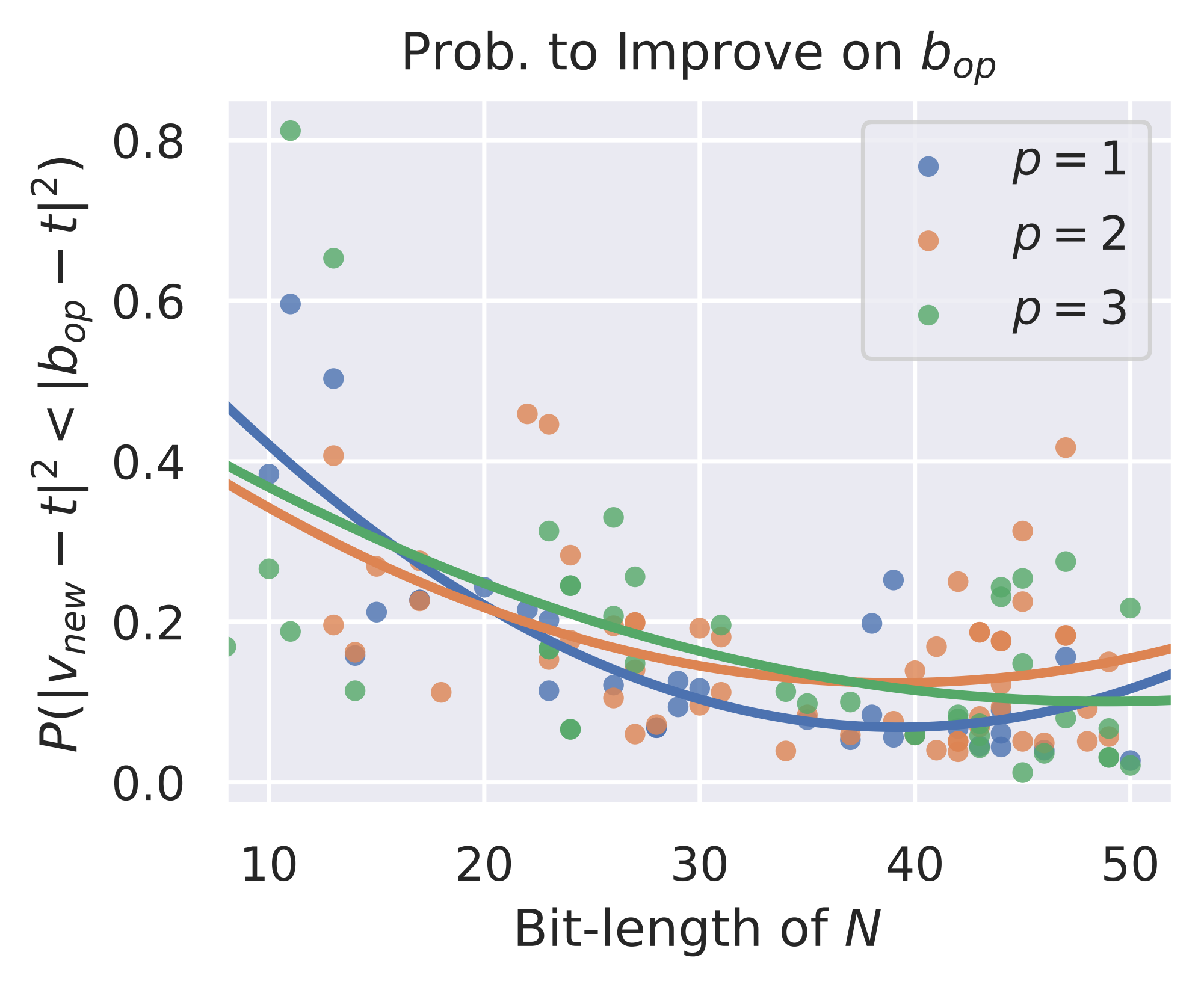

Prob. to Improve on b_{op}
% Improvement on b_{op}
0.0
−0.1
−0.2
−0.3
10
20
30
40
50
Bit-length of N
$p = 1$
$p = 2$
$p = 3$

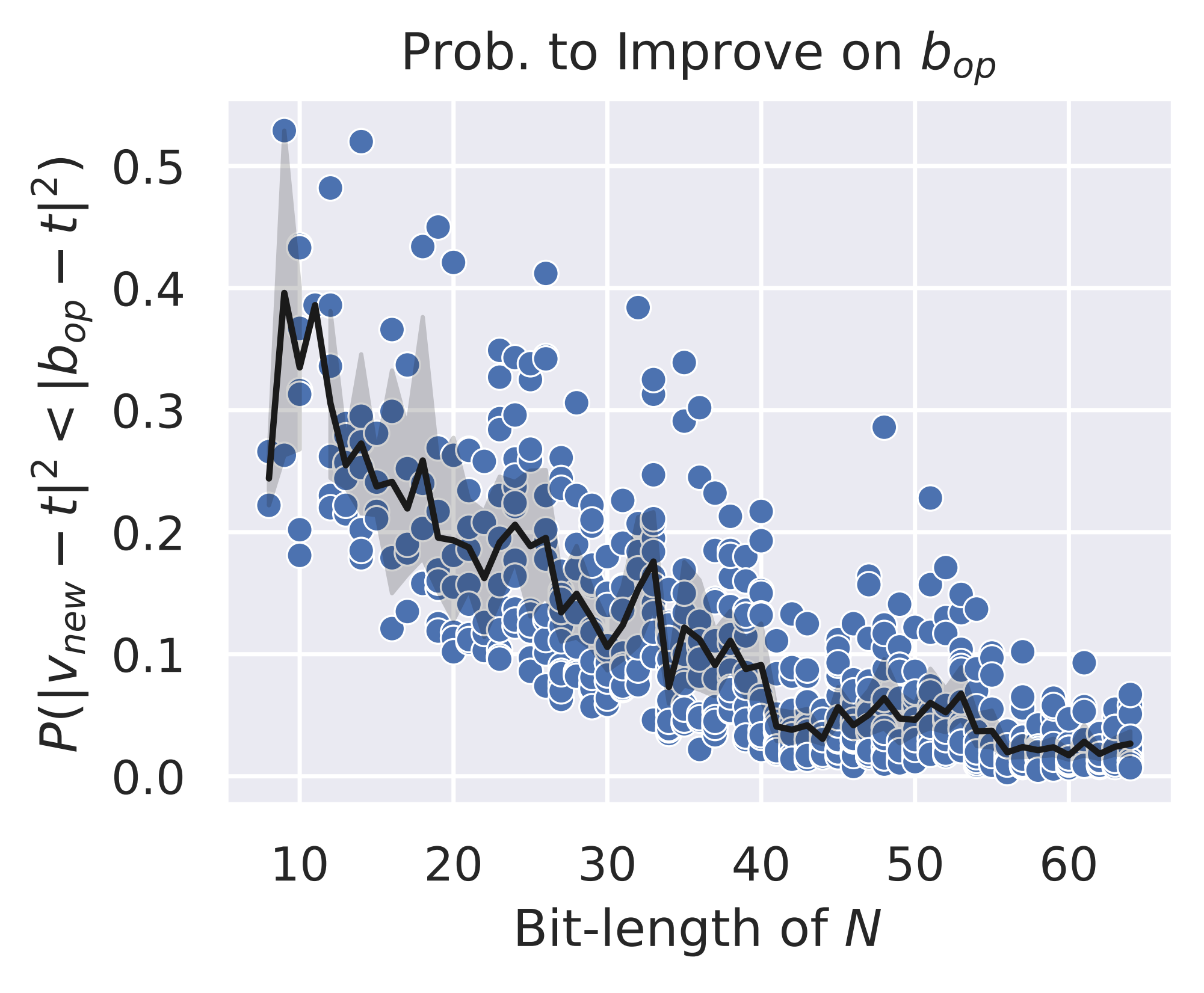

Expected Improvement on the Approximate Solution b_{op}
$p = 1$
$p = 2$
$p = 3$
% Improvement on b_{op}
0.0
−0.1
−0.2
−0.3
10
20
30
40
50
Bit-length of N

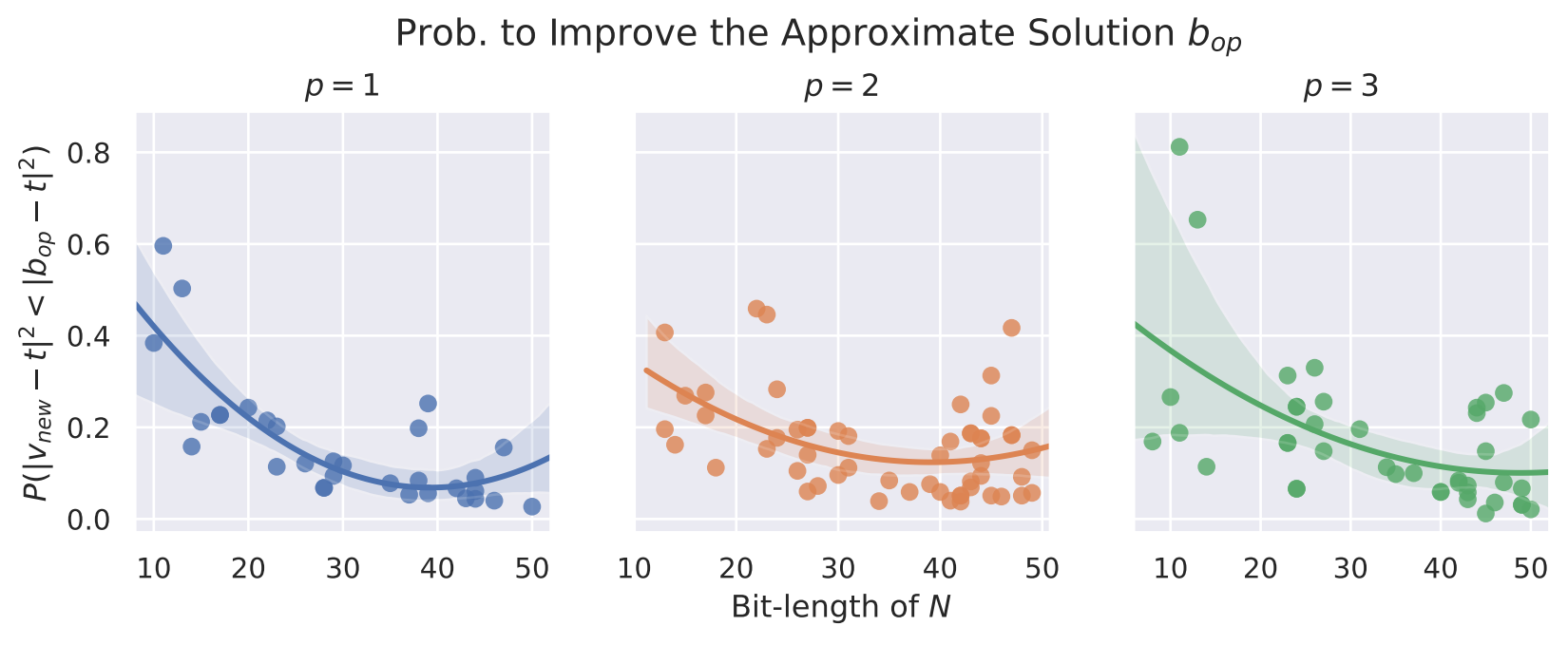

Expected Improvement on the Approximate Solution b_{op}
$p = 1$
$p = 2$
$p = 3$
% Improvement on b_{op}
0.0
−0.1
−0.2
−0.3
10
20
30
40
50
Bit-length of N

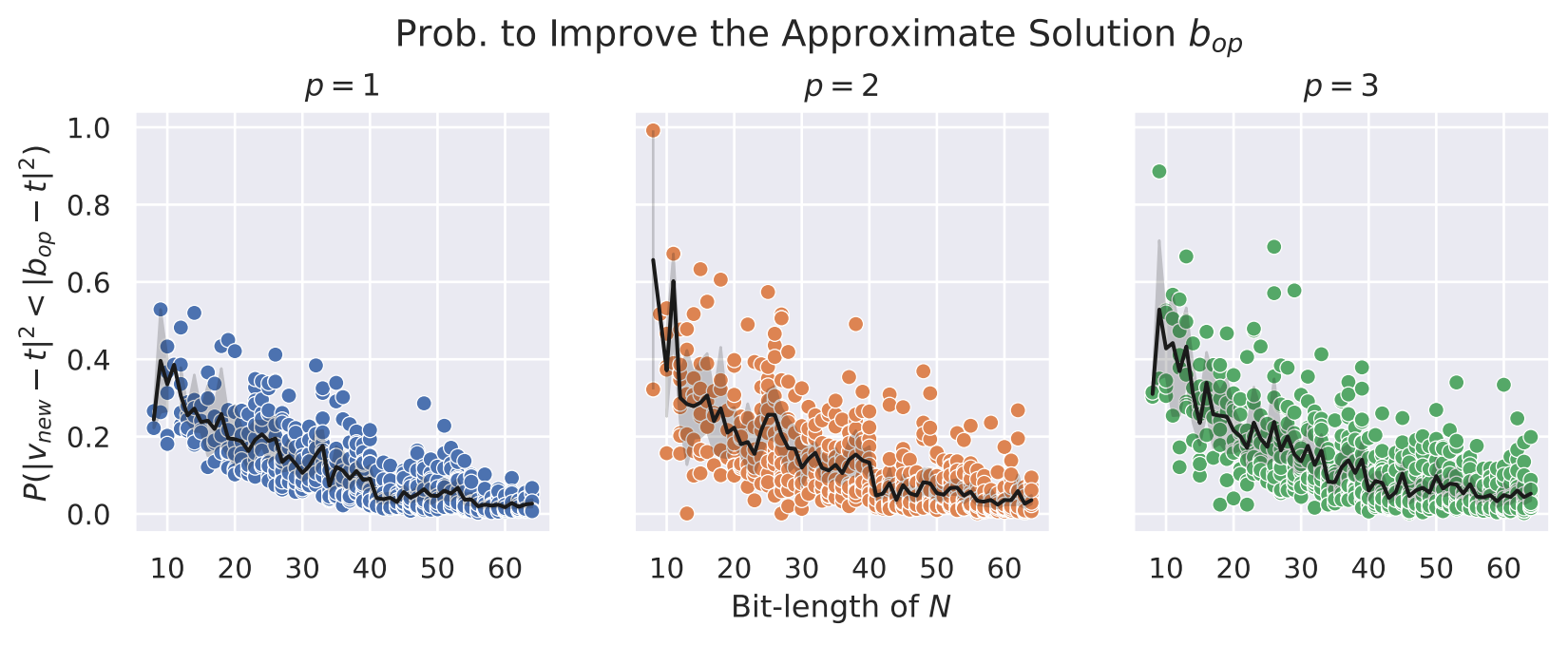

Expected Improvement on the Approximate Solution b_{op}
$p = 1$
$p = 2$
$p = 3$
Improvement ratio on b_{op}
0.0
−0.1
−0.2
−0.3
All data
Successful only
2
4
6
8
10
Lattice Dimension $l \cdot \log_2 N / \log_2 \log_2 N$

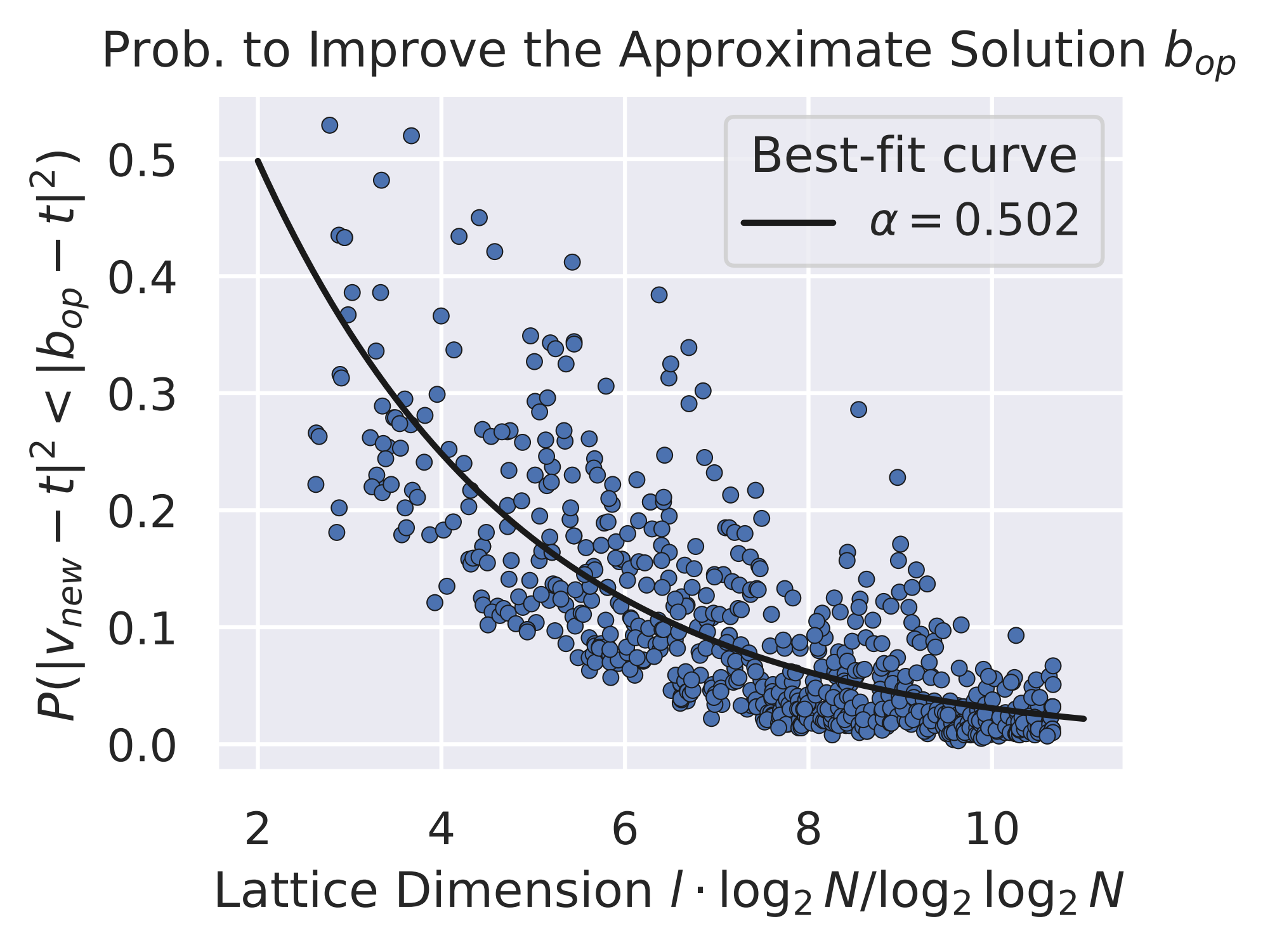

Expected Improvement on b_{op}
(Rolling Average)
0.00
−0.05
−0.10
−0.15
−0.20
% Improvement on b_{op}
$p = 1$
$p = 2$
$p = 3$
4
6
8
10
Lattice Dimension $l \cdot \log_2 N / \log_2 \log_2 N$

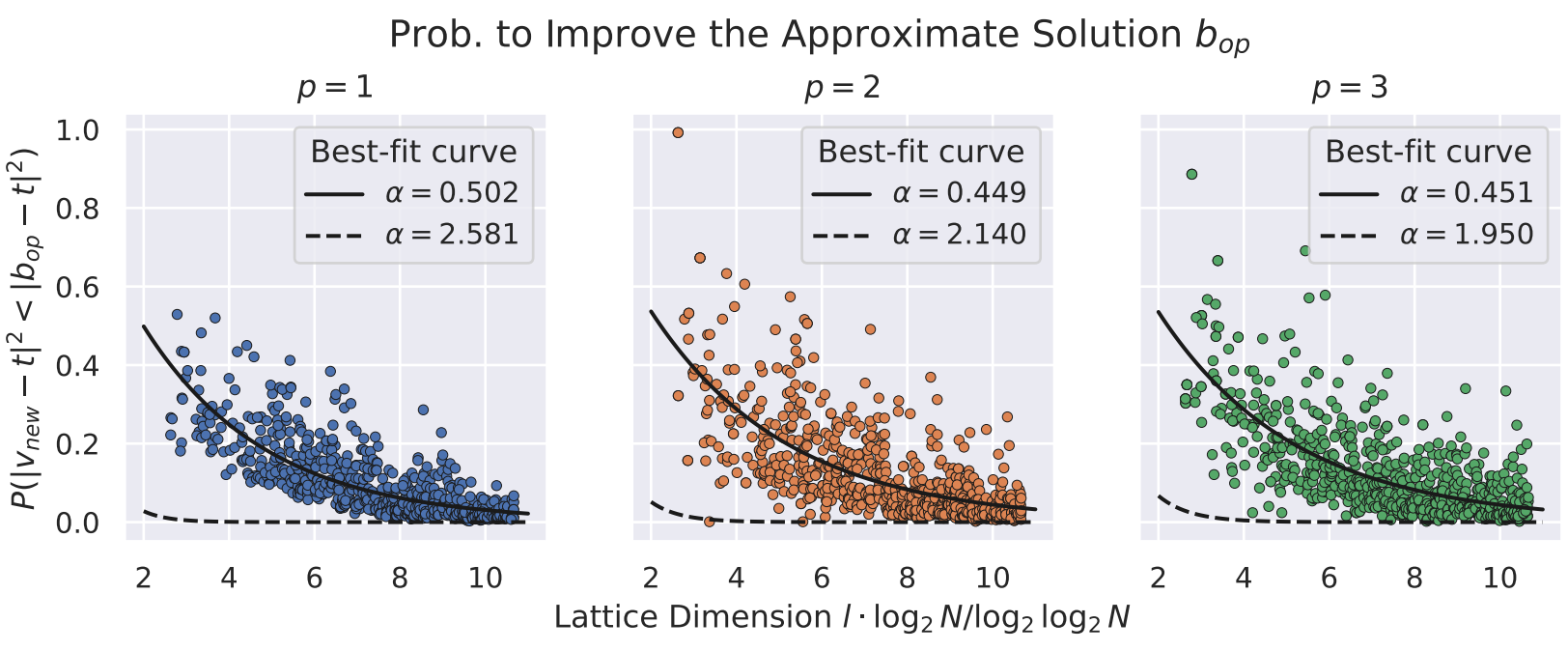

Prob. to Improve on b_{op}
$P(|v_{new} - t|^2 < |b_{op} - t|^2)$
0.0
0.2
0.4
0.6
0.8
10
20
30
40
50
Bit-length of N
$p = 1$
$p = 2$
$p = 3$

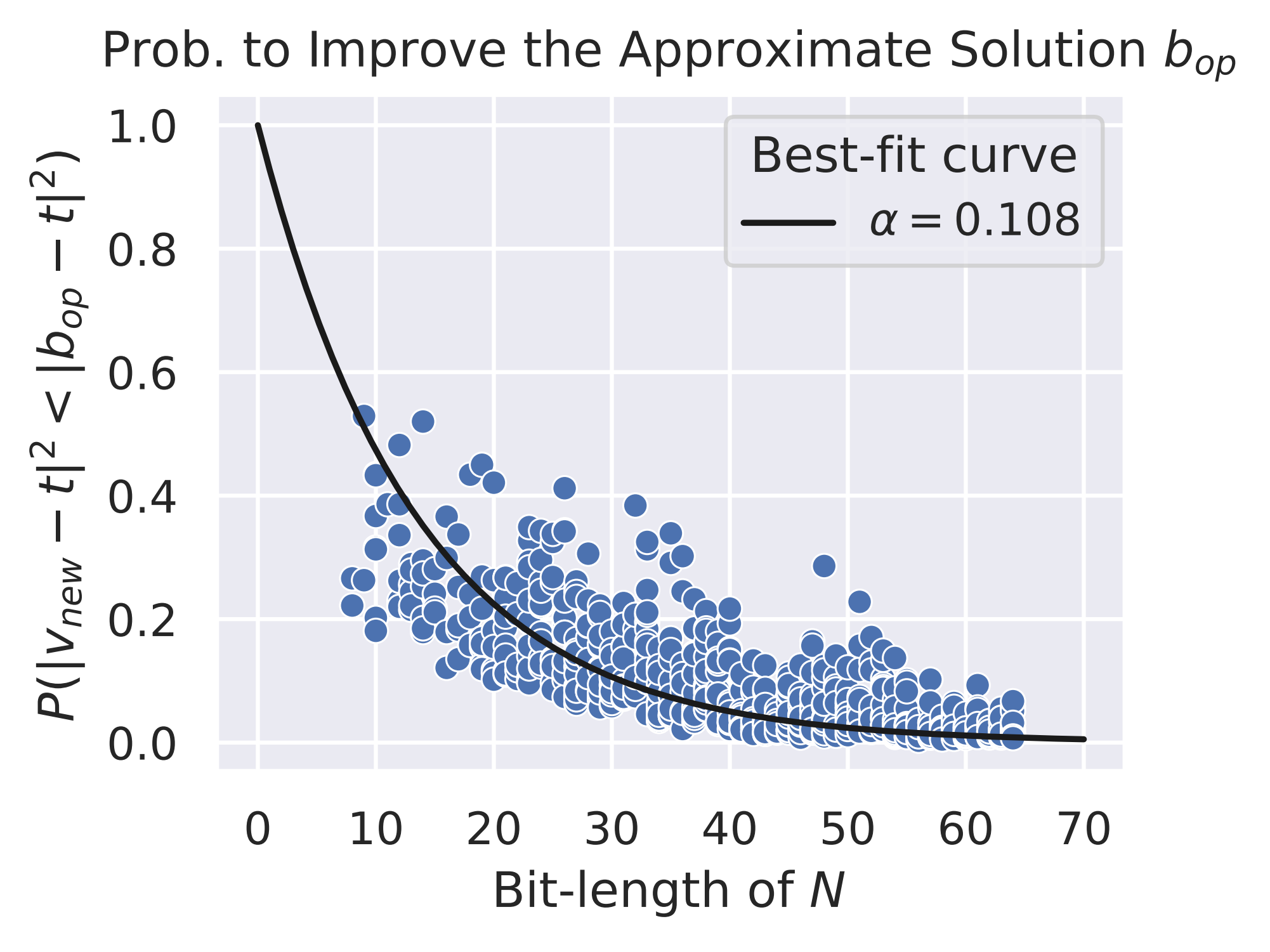

Prob. to Improve on b_{op}
$P(|v_{new} - t|^2 < |b_{op} - t|^2)$
0.0
0.1
0.2
0.3
0.4
0.5
10
20
30
40
50
60
Bit-length of N

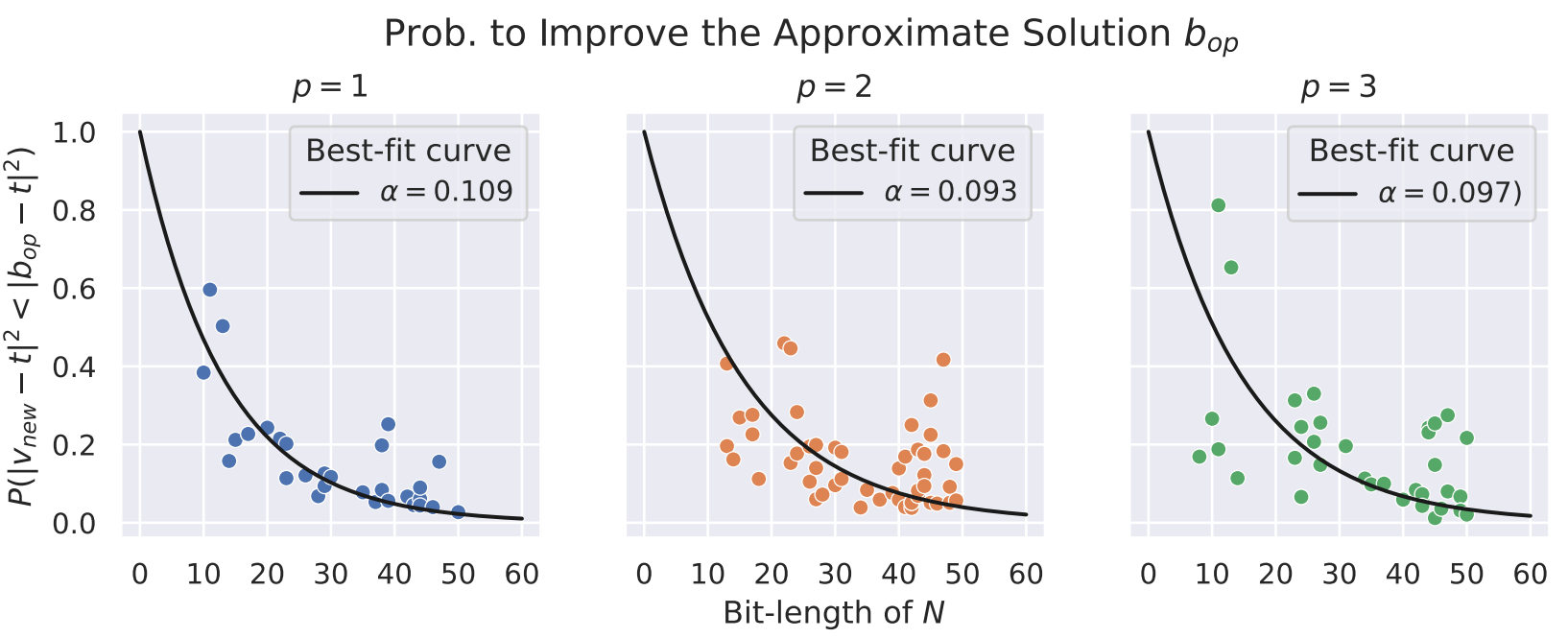

Prob. to Improve the Approximate Solution b_{op}
$p = 1$
$p = 2$
$p = 3$
$P(|v_{new} - t|^2 < |b_{op} - t|^2)$
0.0
0.2
0.4
0.6
0.8
10
20
30
40
50
Bit-length of N

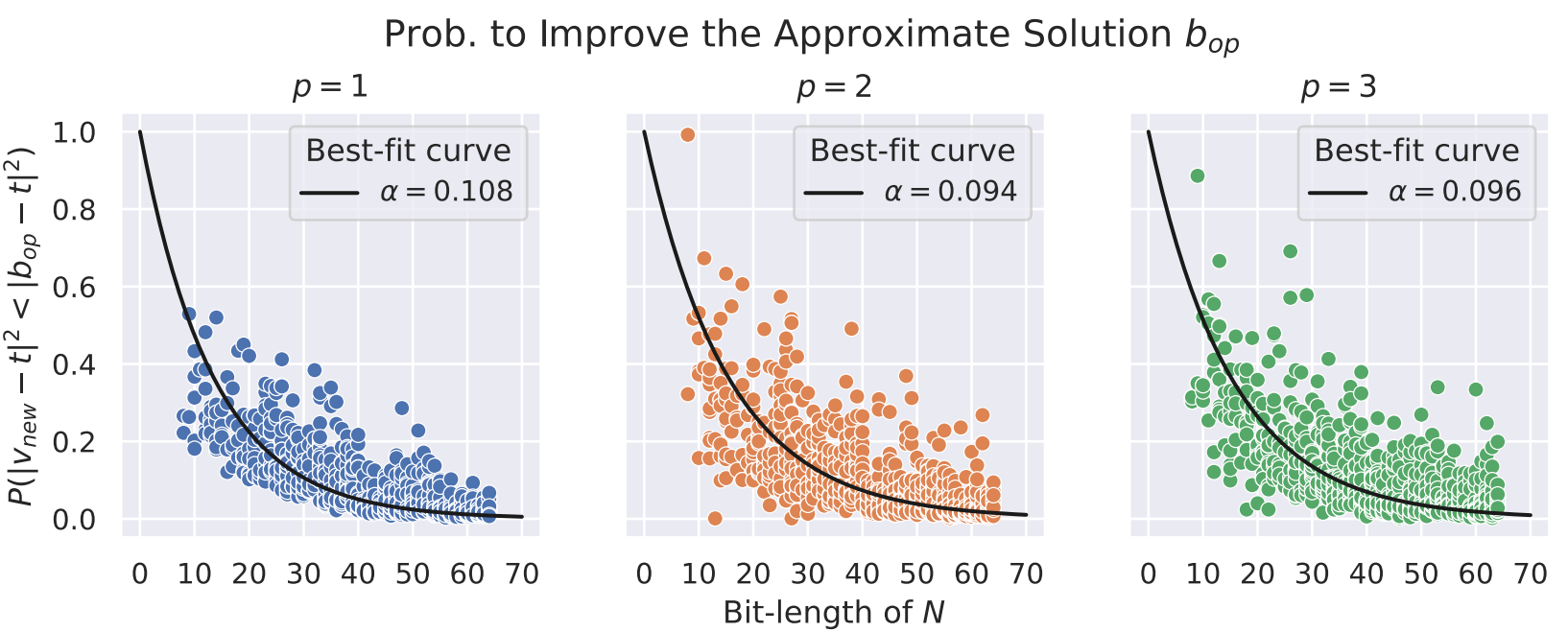

Prob. to Improve the Approximate Solution b_{op}
$p = 1$
$p = 2$
$p = 3$
$P(|v_{new} - t|^2 < |b_{op} - t|^2)$
1.0
0.8
0.6
0.4
0.2
0.0
10
20
30
40
50
60
Bit-length of N

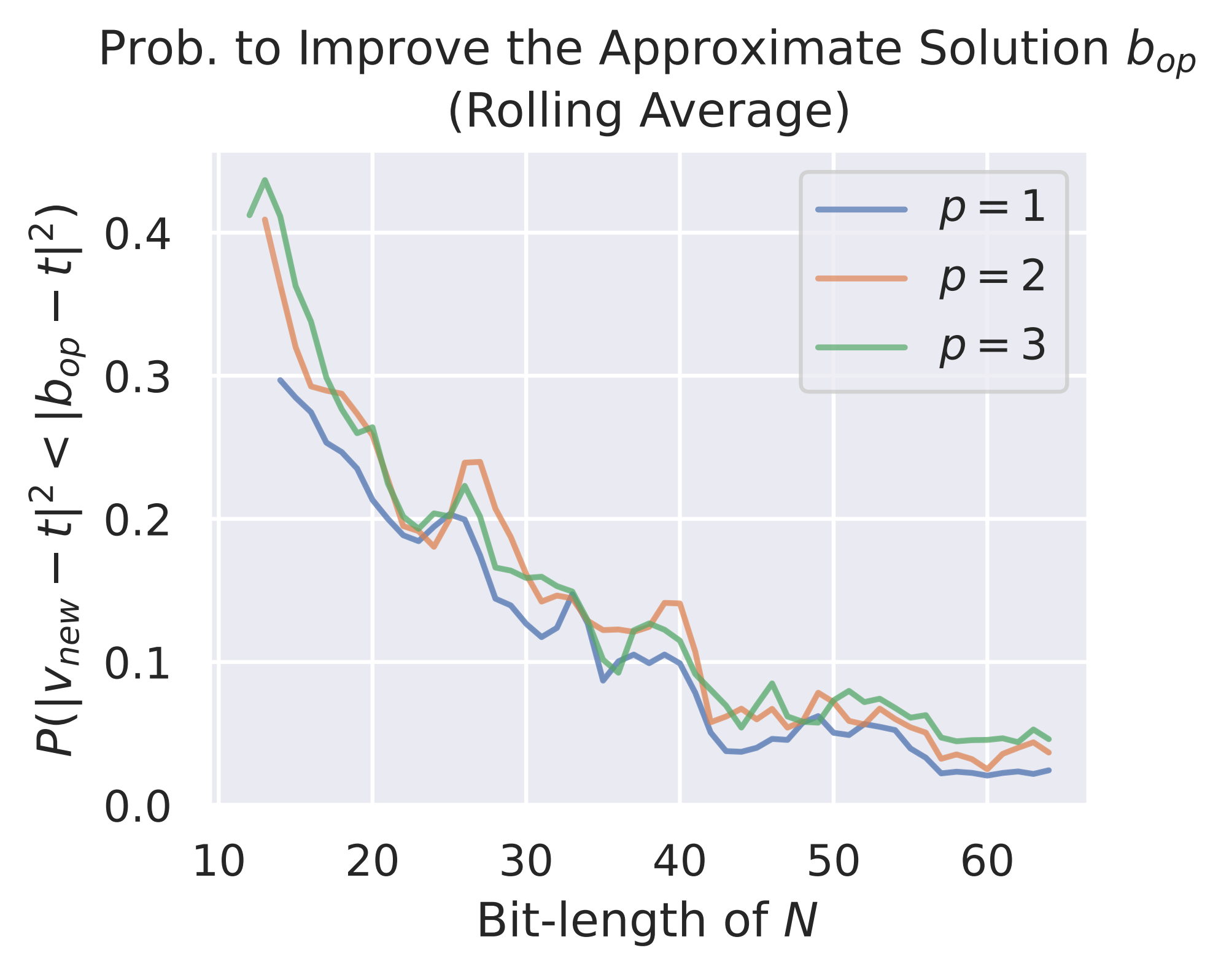

Prob. to Improve the Approximate Solution b_{op}
Best-fit curve
$\alpha = 0.502$
$P(|v_{new} - t|^2 < |b_{op} - t|^2)$
0.0
0.1
0.2
0.3
0.4
0.5
2
4
6
8
10
Lattice Dimension $l \cdot \log_2 N / \log_2 \log_2 N$


Prob. to Improve the Approximate Solution b_{op}
$p = 1$
$p = 2$
$p = 3$
Best-fit curve
$\alpha = 0.502$
$\alpha = 2.581$
Best-fit curve
$\alpha = 0.449$
$\alpha = 2.140$
Best-fit curve
$\alpha = 0.451$
$\alpha = 1.950$
$P(|v_{new} - t|^2 < |b_{op} - t|^2)$
0.0
0.2
0.4
0.6
0.8
1.0
2
4
6
8
10
Lattice Dimension $l \cdot \log_2 N / \log_2 \log_2 N$


Prob. to Improve the Approximate Solution b_{op}
$P(|v_{new} - t|^2 < |b_{op} - t|^2)$
1.0
0.8
0.6
0.4
0.2
0.0
Best-fit curve
$\alpha = 0.108$
0
10
20
30
40
50
60
70
Bit-length of N


Prob. to Improve the Approximate Solution b_{op}
$p = 1$
$p = 2$
$p = 3$
Best-fit curve
$\alpha = 0.109$
Best-fit curve
$\alpha = 0.093$
Best-fit curve
$\alpha = 0.097)$
$P(|v_{new} - t|^2 < |b_{op} - t|^2)$
1.0
0.8
0.6
0.4
0.2
0.0
0
10
20
30
40
50
60
Bit-length of N


Prob. to Improve the Approximate Solution b_{op}
$p = 1$
$p = 2$
$p = 3$
Best-fit curve
$\alpha = 0.108$
Best-fit curve
$\alpha = 0.094$
Best-fit curve
$\alpha = 0.096$
$P(|v_{new} - t|^2 < |b_{op} - t|^2)$
1.0
0.8
0.6
0.4
0.2
0.0
0 10 20 30 40 50 60 70
0 10 20 30 40 50 60 70
0 10 20 30 40 50 60 70
Bit-length of N


Prob. to Improve the Approximate Solution b_{op}
(Rolling Average)
$P(|v_{new} - t|^2 < |b_{op} - t|^2)$
0.0
0.1
0.2
0.3
0.4
10
20
30
40
50
60
Bit-length of N
$p = 1$
$p = 2$
$p = 3$