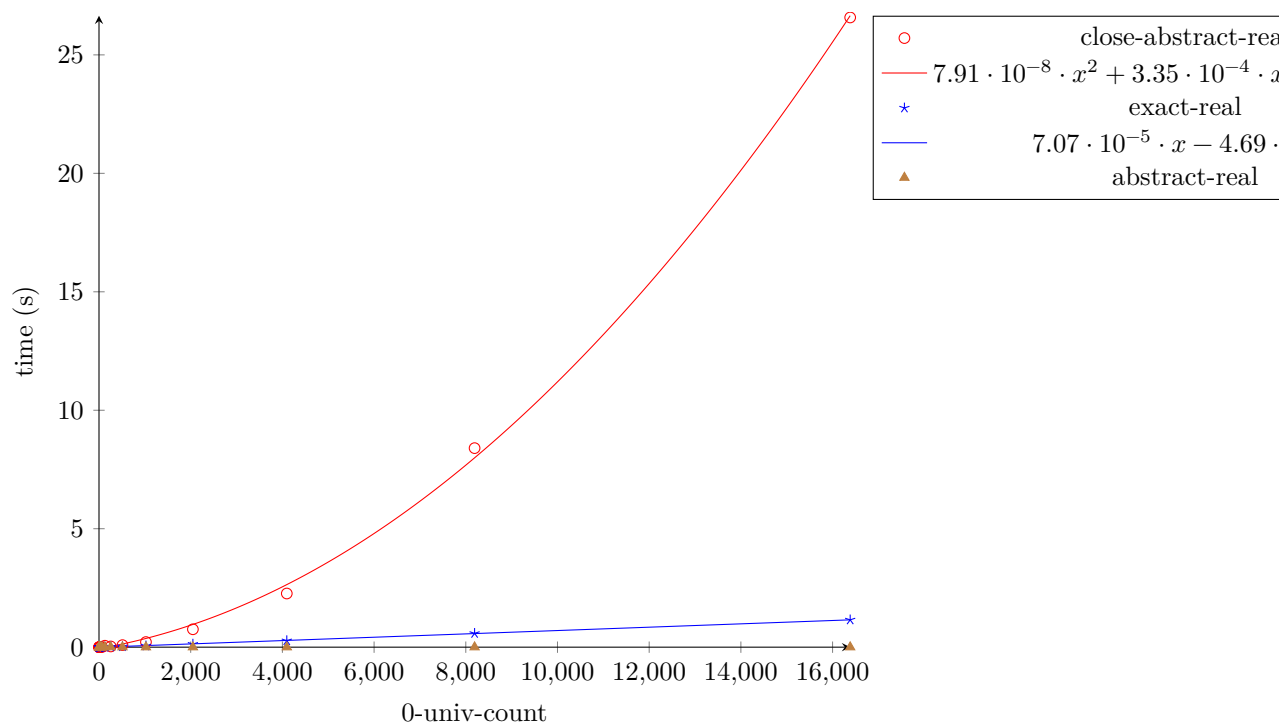Figure 1: timing-pattern

1

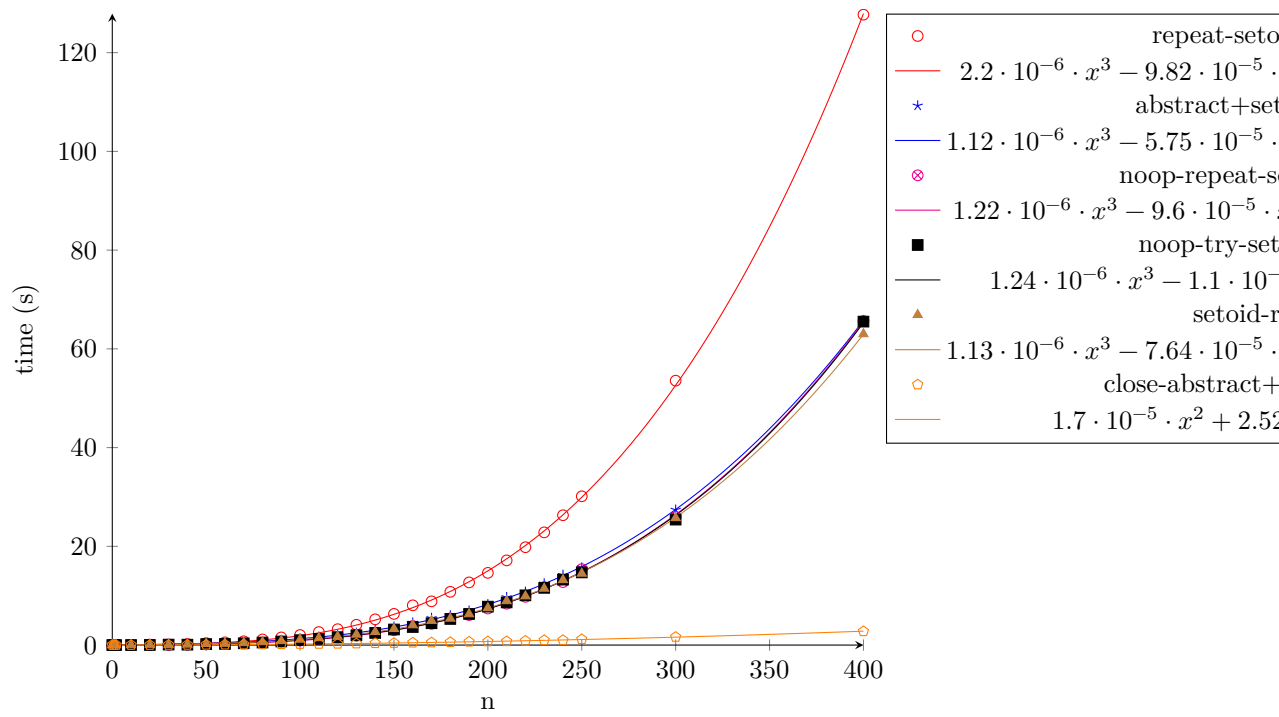Figure 2: timing-n-polymorphic-universes param-1-n 0

Figure 3: timing-repeat-setoid-rewrite-under-binders
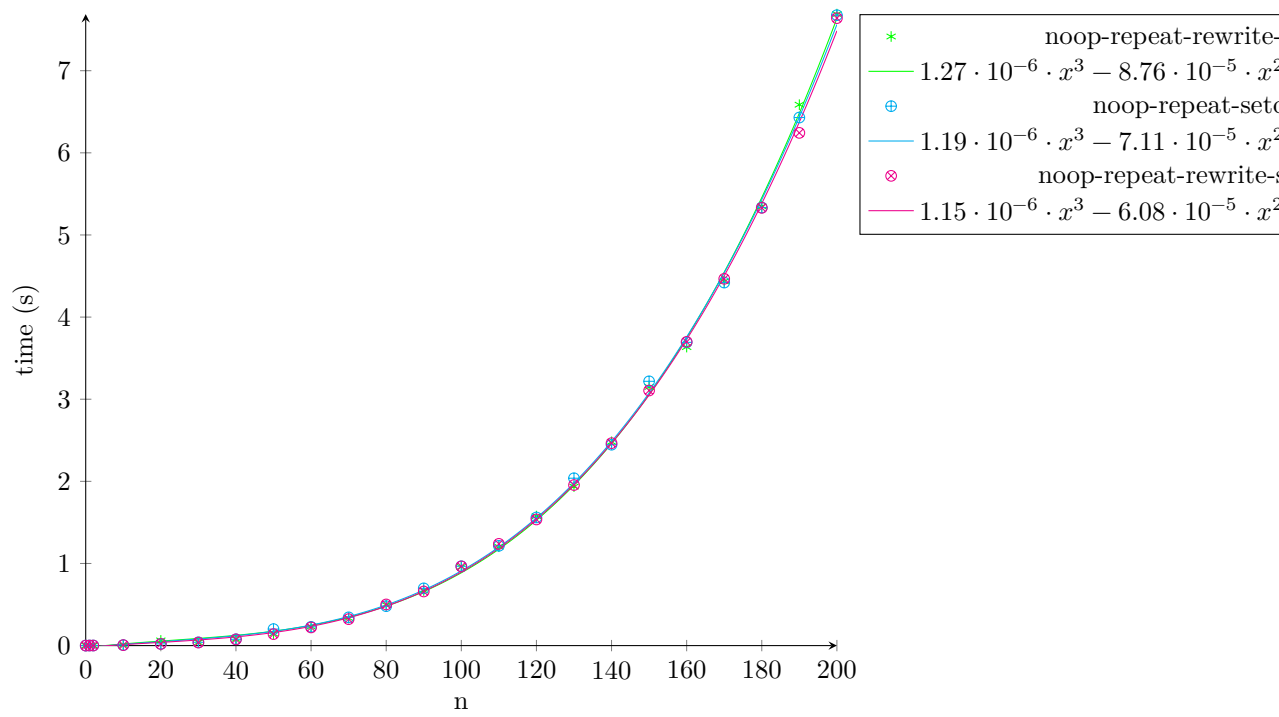
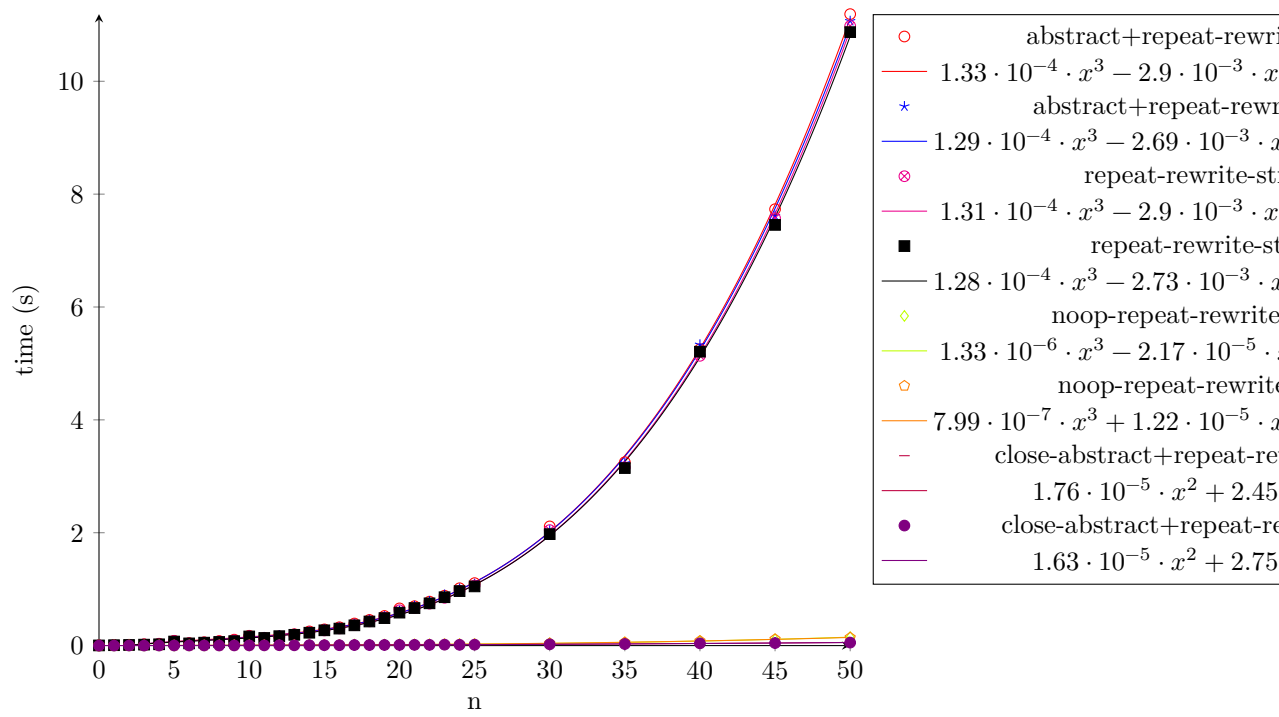Figure 4: timing-repeat-setoid-rewrite-under-binders-noop

4

Figure 5: timing-rewrite-strat-under-binders

time (s)

3.5

3

2.5

2

1.5

1

0.5

0

0   50   100   150   200   250   300   350   400

n

abstract+autorewrit

$2.54 \cdot 10^{-5} \cdot x^2 - 8.42 \cdot 10^{-4} \cdot$

abstract+rewrite!-

$2.5 \cdot 10^{-5} \cdot x^2 - 6.89 \cdot 10^{-4} \cdot x$

autorewrite-rea

$1.69 \cdot 10^{-5} \cdot x^2 - 9.04 \cdot 10^{-4} \cdot$

rewrite!-real

$1.67 \cdot 10^{-5} \cdot x^2 - 8.02 \cdot 10^{-4} \cdot$

close-abstract+autorew

$8.41 \cdot 10^{-6} \cdot x^2 + 4.87 \cdot 10^{-5} \cdot$

close-abstract+rewrit

$8.25 \cdot 10^{-6} \cdot x^2 + 9.52 \cdot 10^{-5} \cdot$

autorewrite-noop-

$2.18 \cdot 10^{-5} \cdot x - 9.14$

rewrite?-noop-re

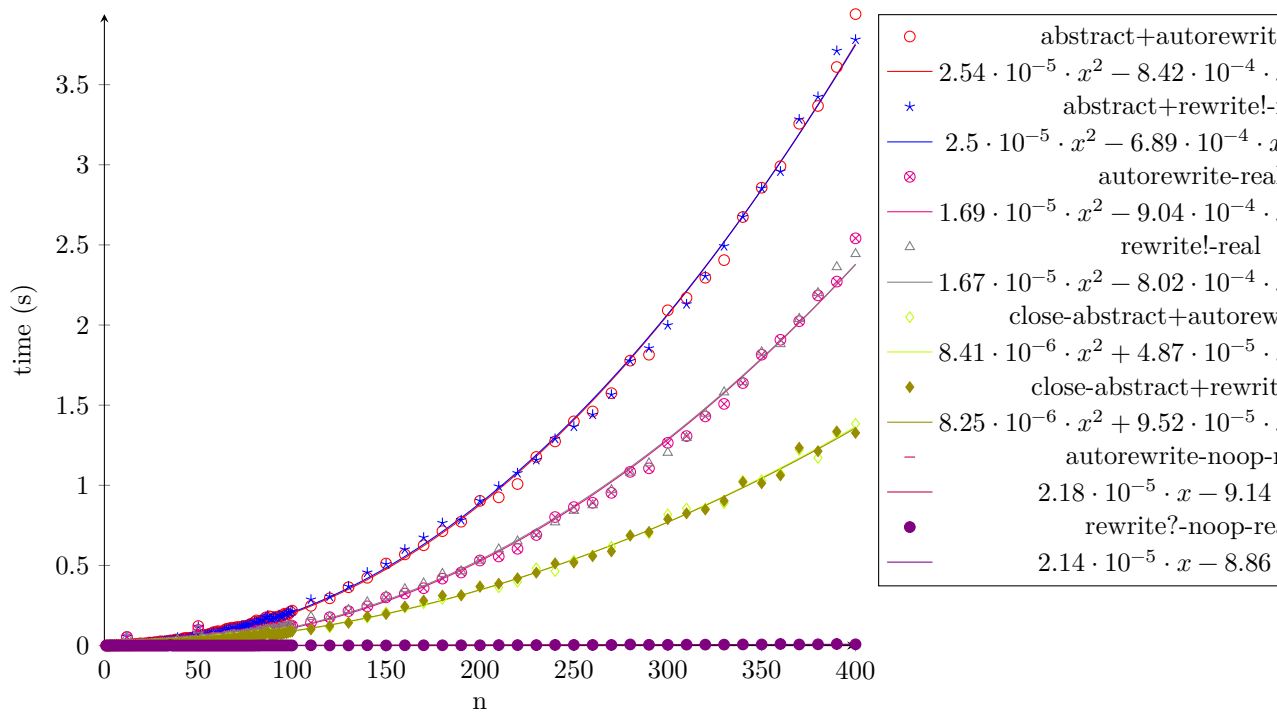$2.14 \cdot 10^{-5} \cdot x - 8.86$
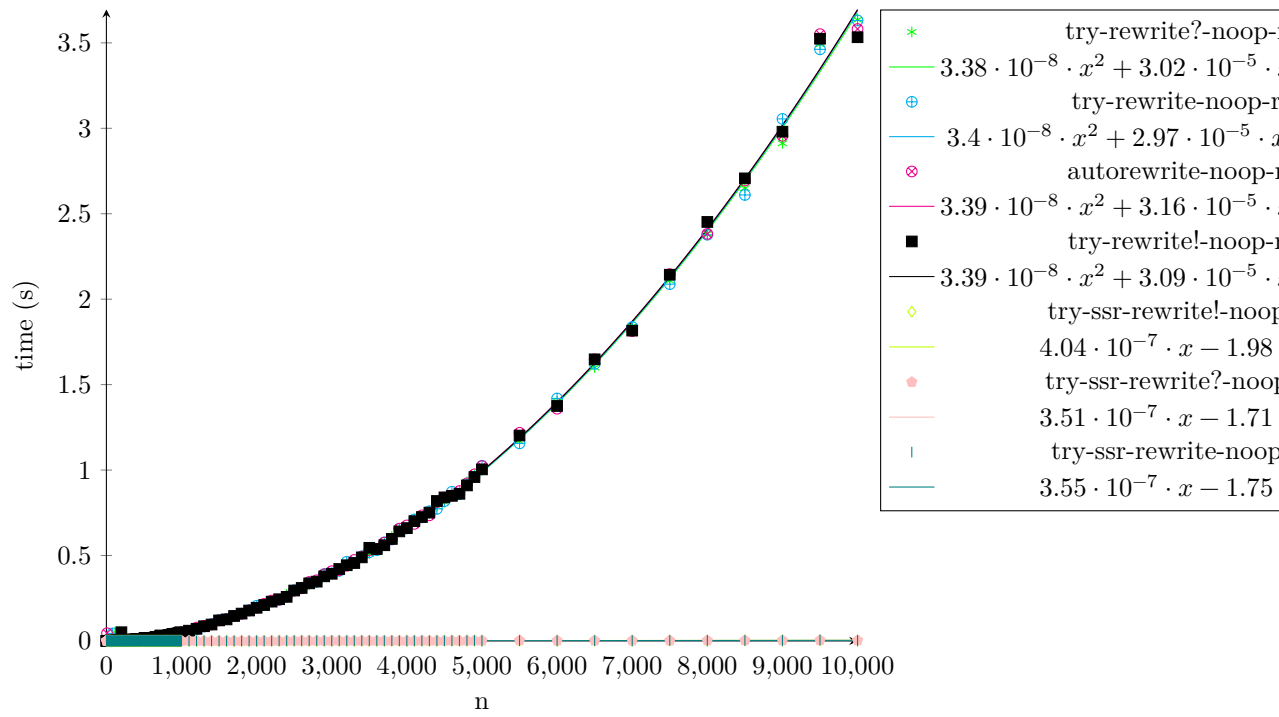
Figure 6: timing-rewrite-repeated-app-autorewrite

6

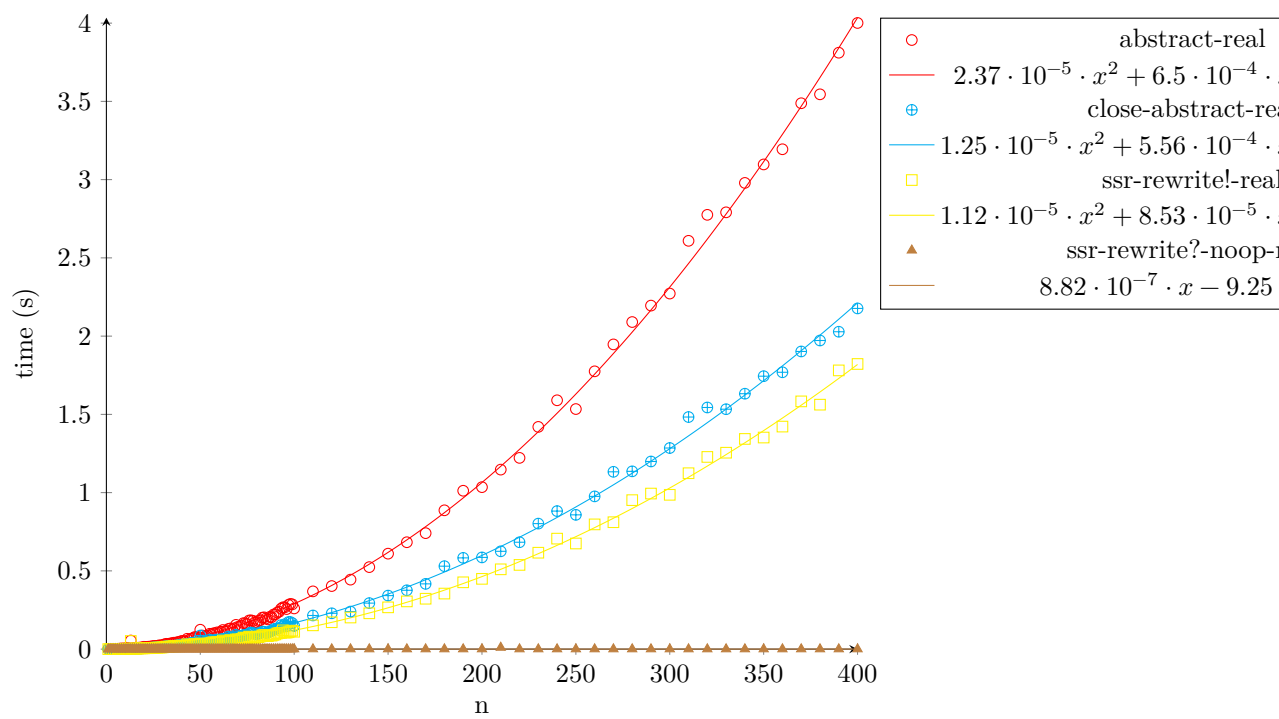Figure 7: timing-rewrite-repeated-app-autorewrite-noop

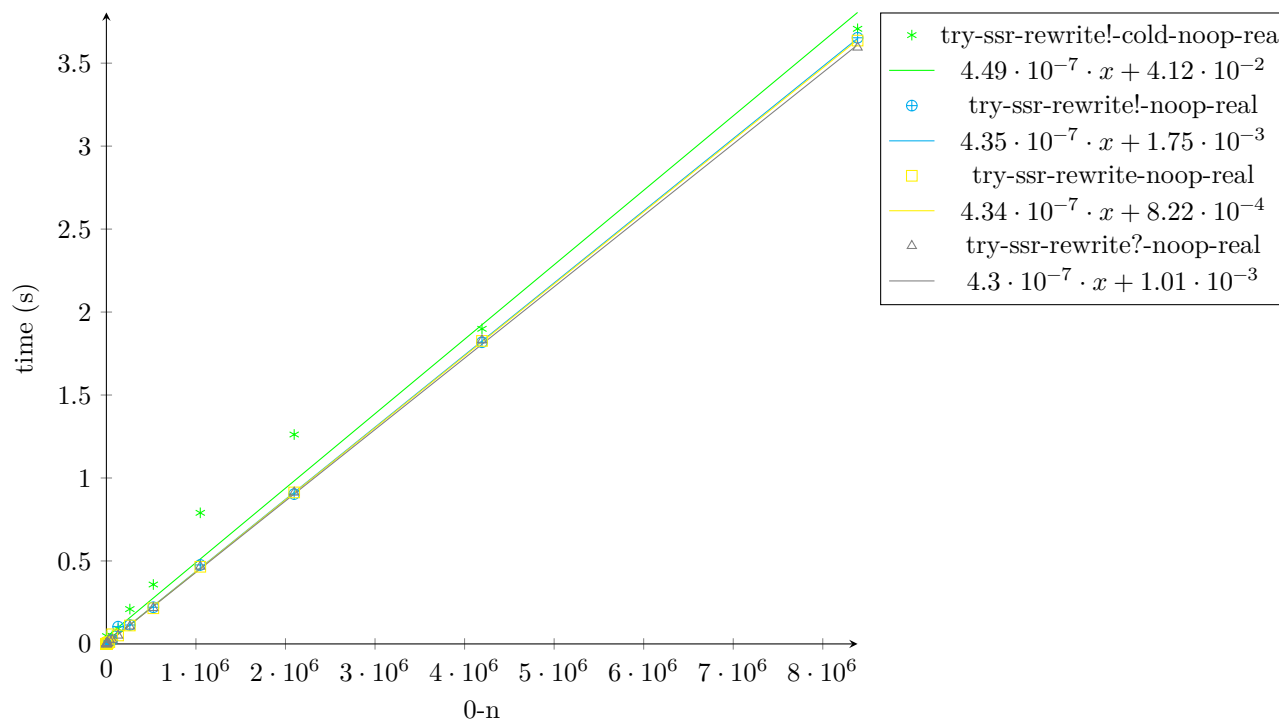Figure 8: timing-rewrite-repeated-app-ssrrewrite

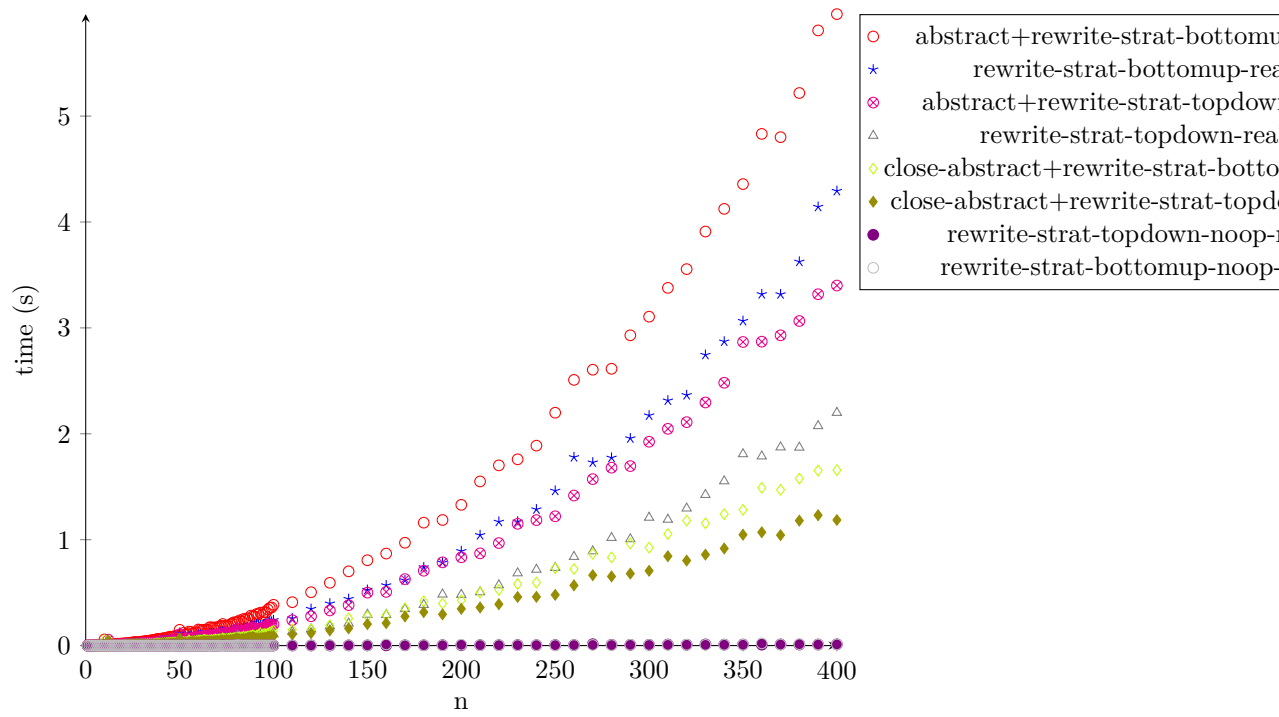Figure 9: timing-rewrite-repeated-app-ssrrewrite-noop param-1-lgn 1

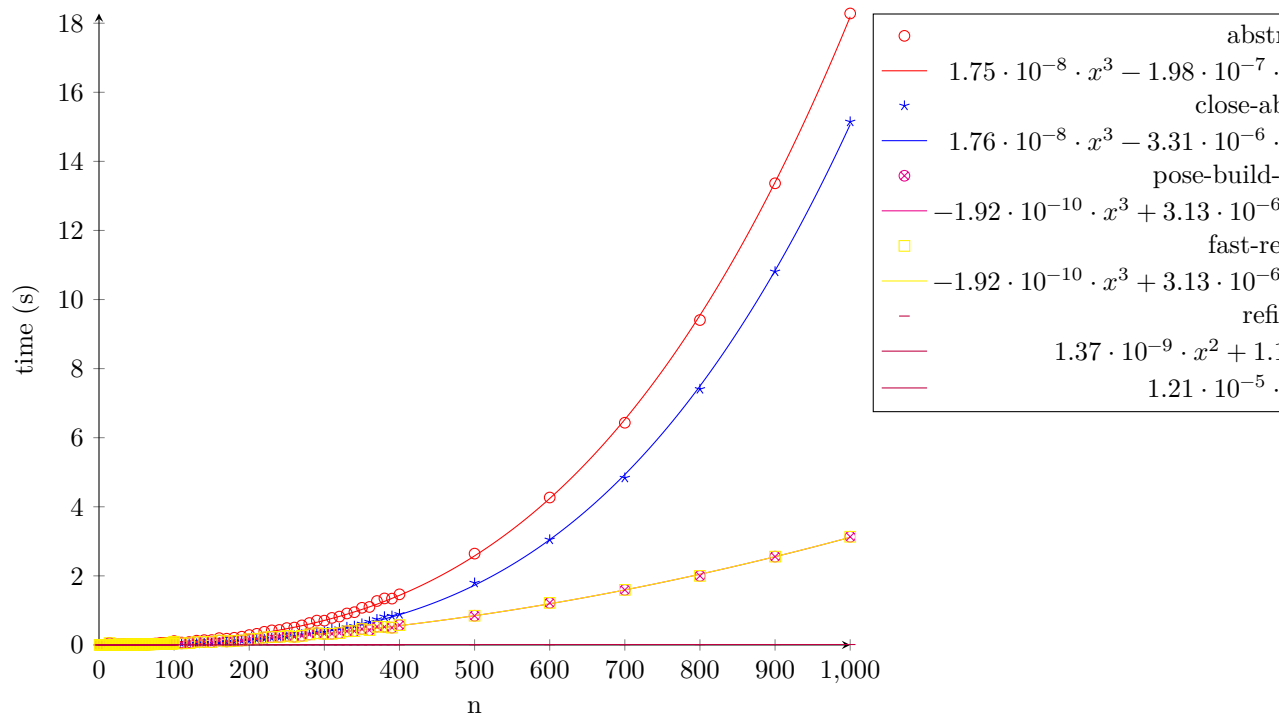Figure 10: timing-rewrite-repeated-app-rewrite-strat

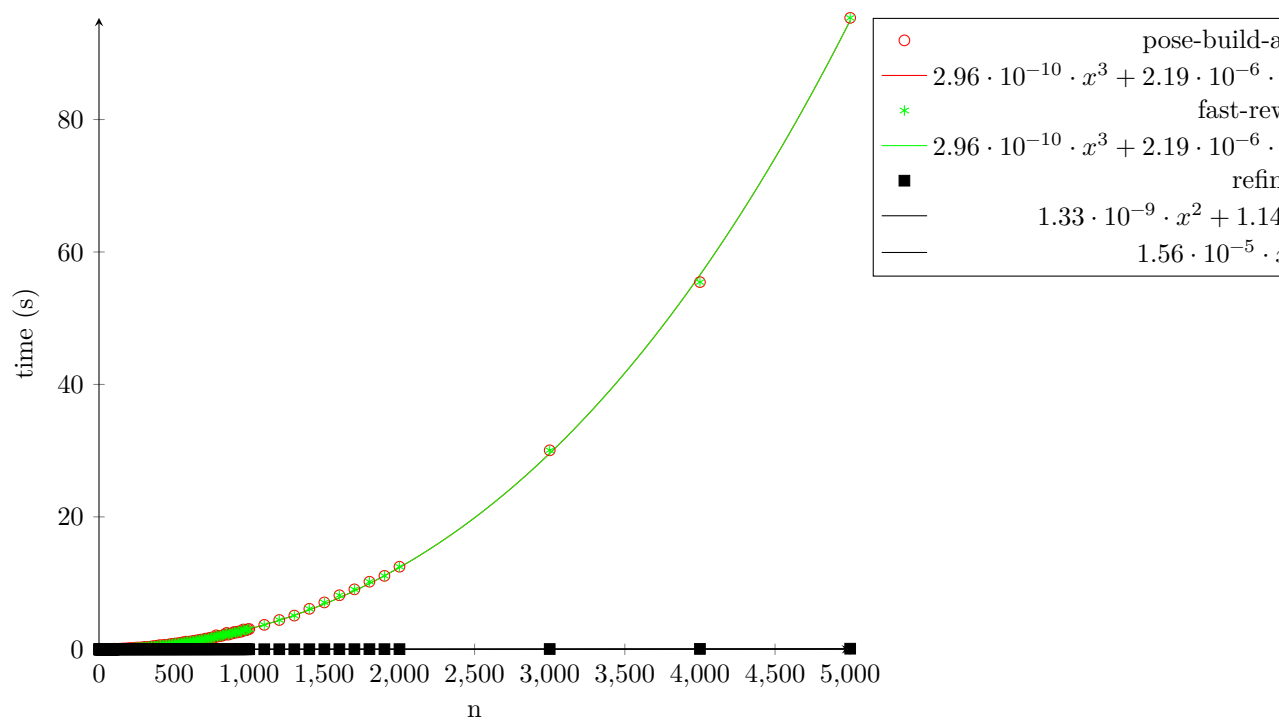Figure 11: timing-rewrite-repeated-app-fast-rewrite

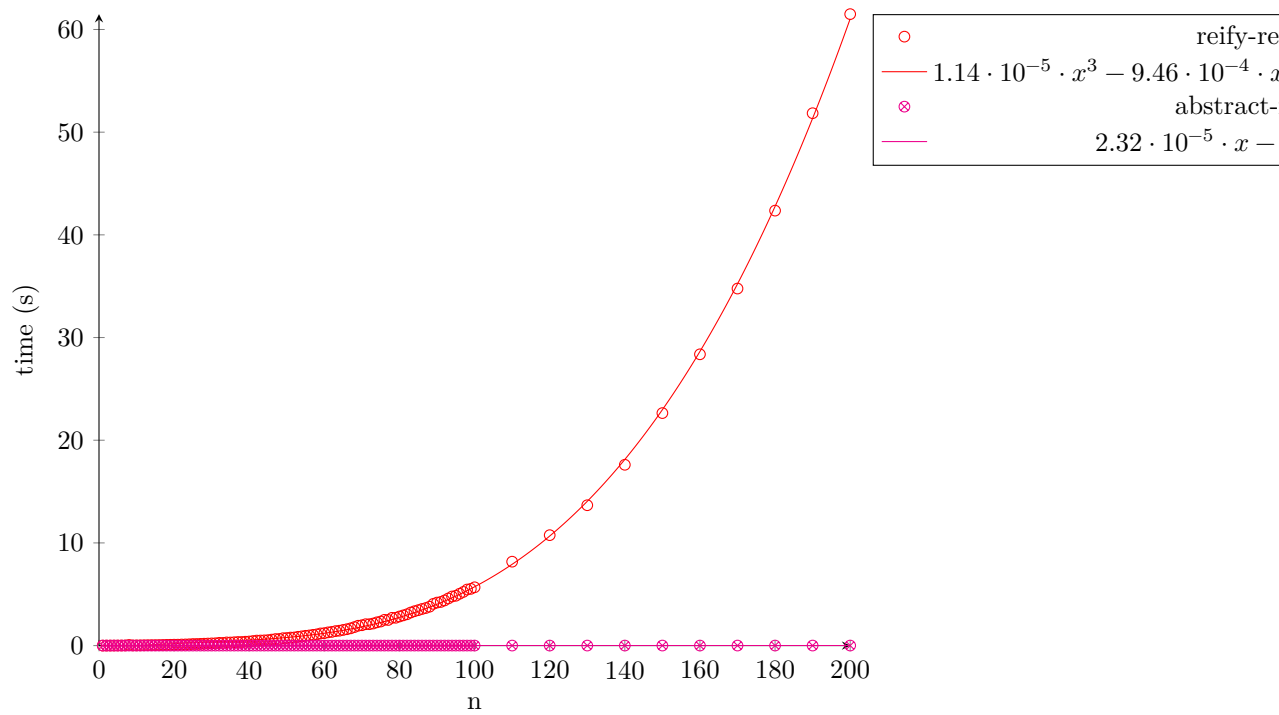Figure 12: timing-rewrite-repeated-app-fast-rewrite-no-abstract
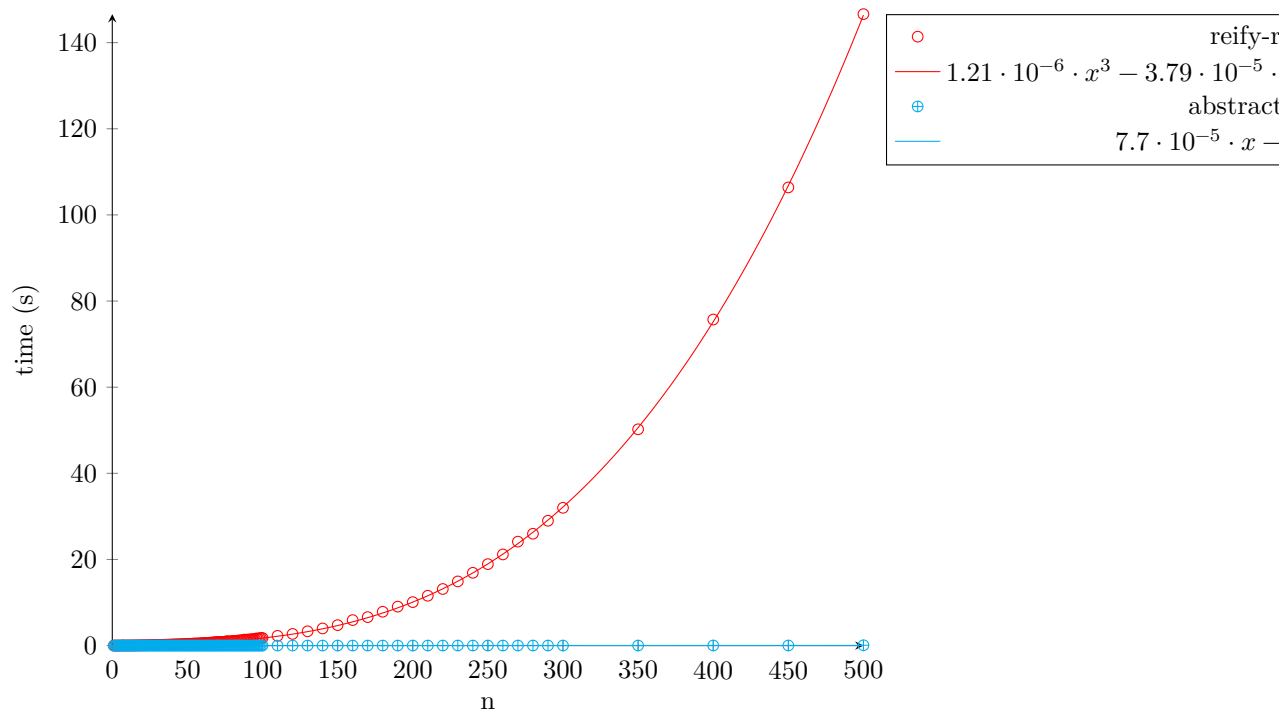
Figure 13: timing-typeclass-reification-let-in-HOAS

Figure 14: timing-typeclass-reification-let-in-PHOAS