Figure 1: timing-pattern

1

Figure 2: timing-n-polymorphic-universes param-1-n 0
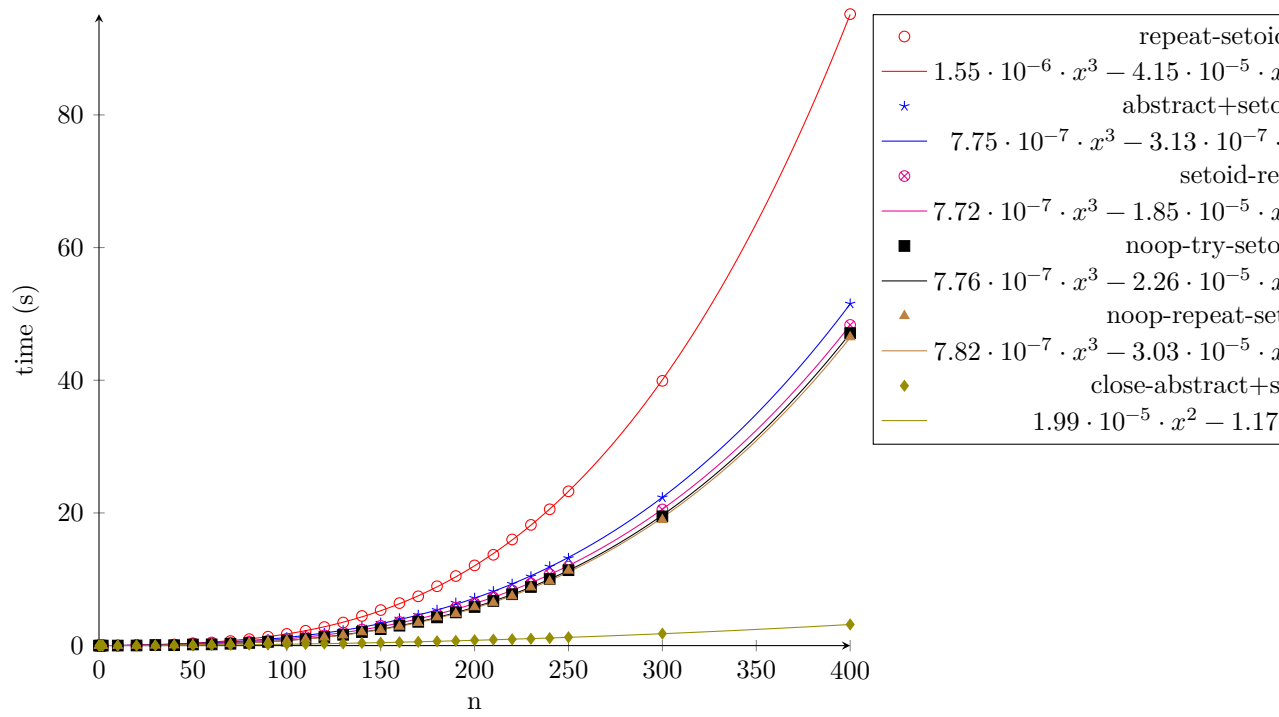
time (s)

80

60

40

20

0

0   50   100   150   200   250   300   350   400

n

repeat-setoid

$1.55 \cdot 10^{-6} \cdot x^3 - 4.15 \cdot 10^{-5} \cdot x$

abstract+set

$7.75 \cdot 10^{-7} \cdot x^3 - 3.13 \cdot 10^{-7} \cdot$

setoid-re

$7.72 \cdot 10^{-7} \cdot x^3 - 1.85 \cdot 10^{-5} \cdot x$

noop-try-seto

$7.76 \cdot 10^{-7} \cdot x^3 - 2.26 \cdot 10^{-5} \cdot x$

noop-repeat-se

$7.82 \cdot 10^{-7} \cdot x^3 - 3.03 \cdot 10^{-5} \cdot x$

close-abstract+s

$1.99 \cdot 10^{-5} \cdot x^2 - 1.17$

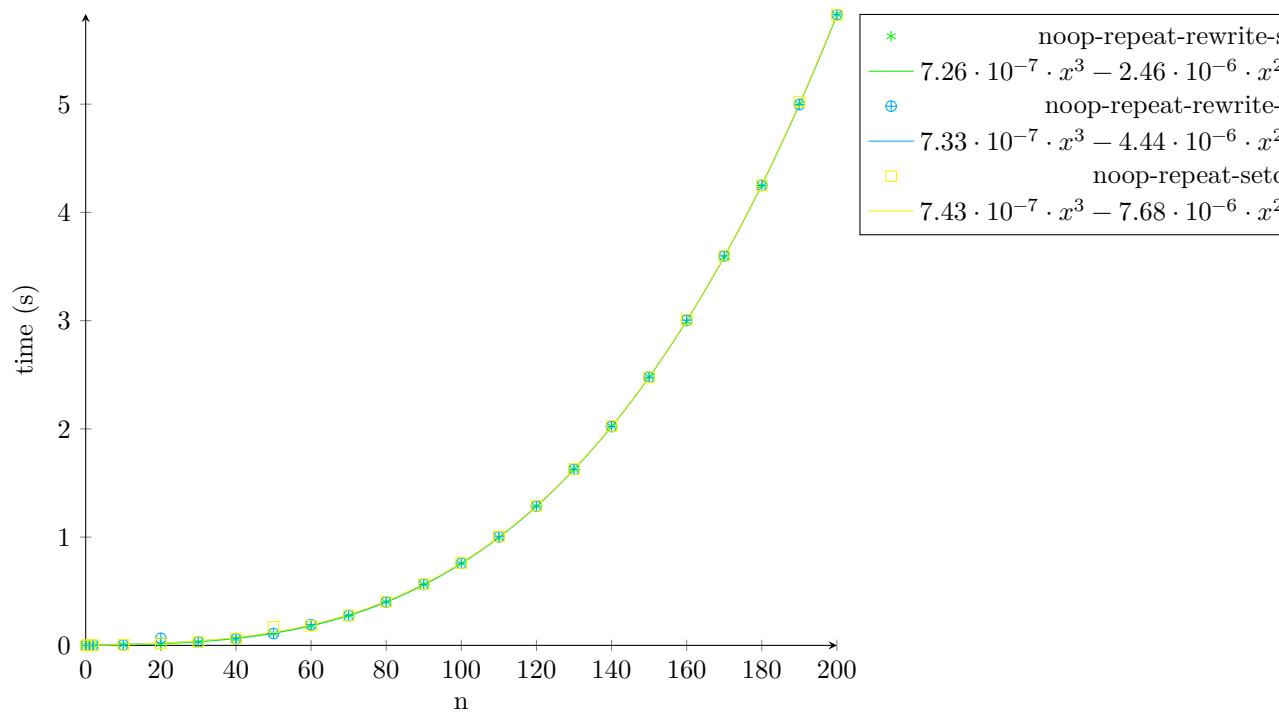Figure 3: timing-repeat-setoid-rewrite-under-binders

3

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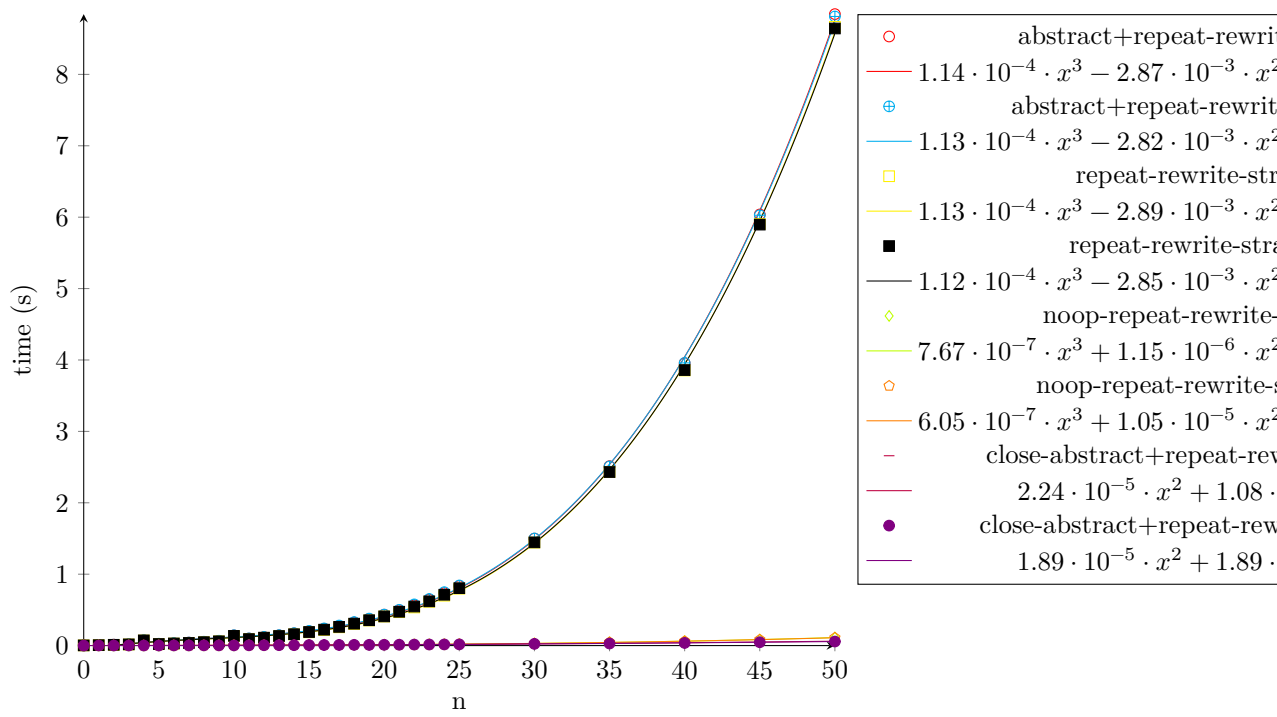
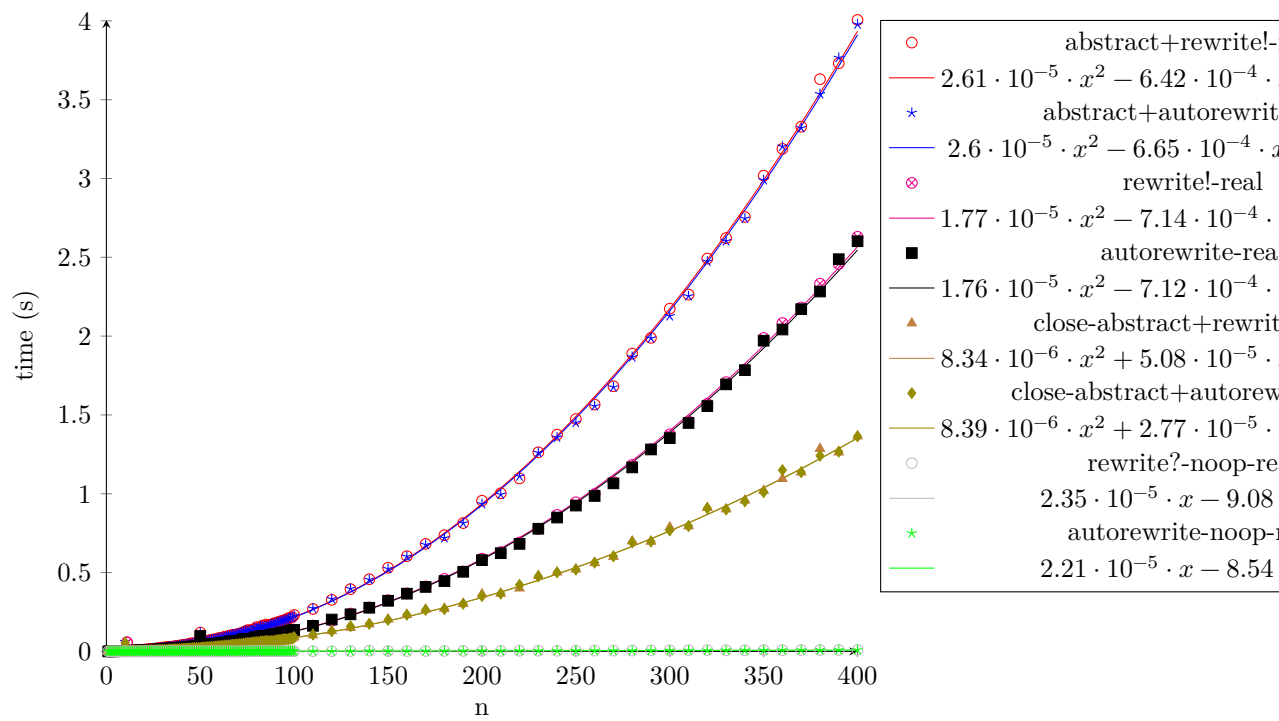4

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

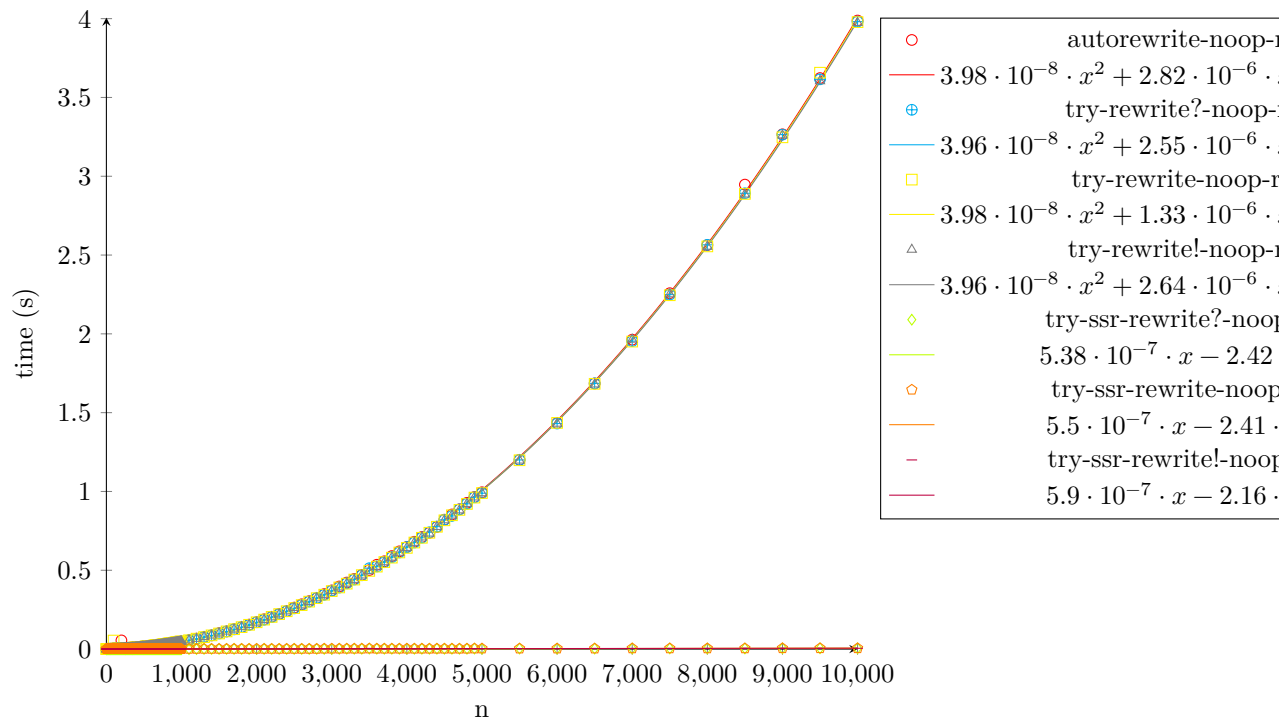Figure 6: timing-rewrite-repeated-app-autorewrite

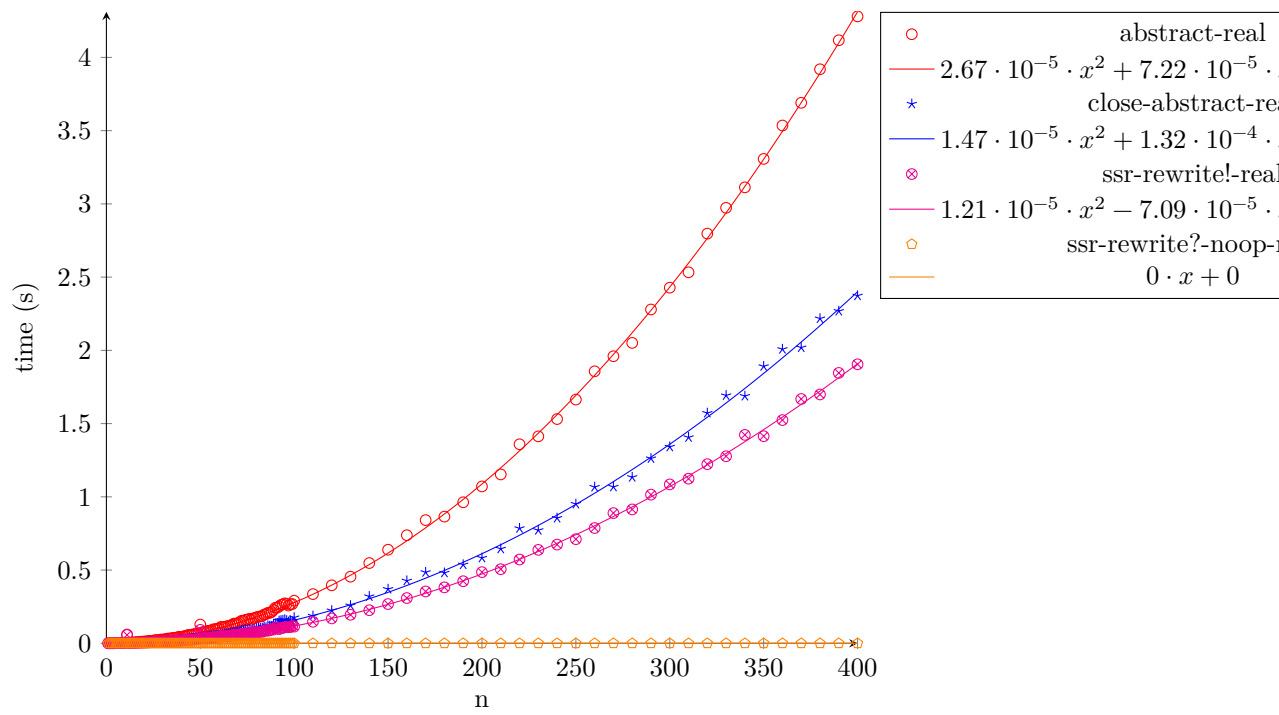Figure 7: timing-rewrite-repeated-app-autorewrite-noop
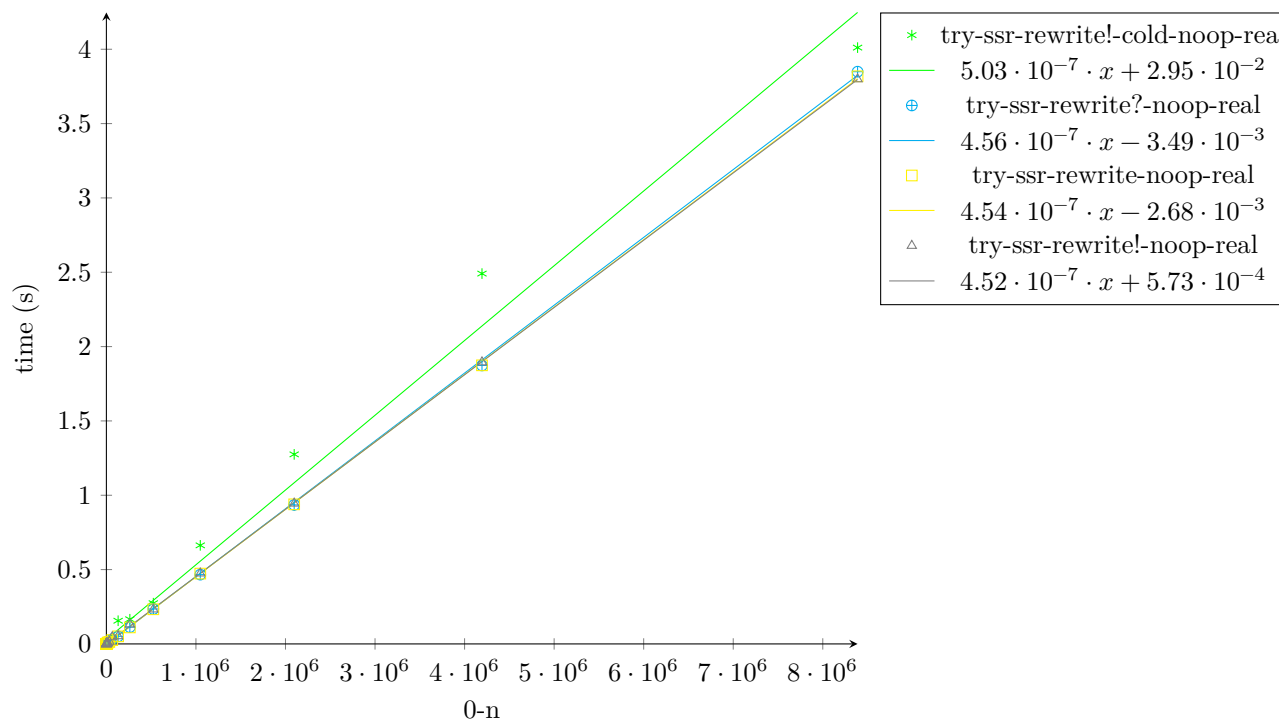
7

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

8

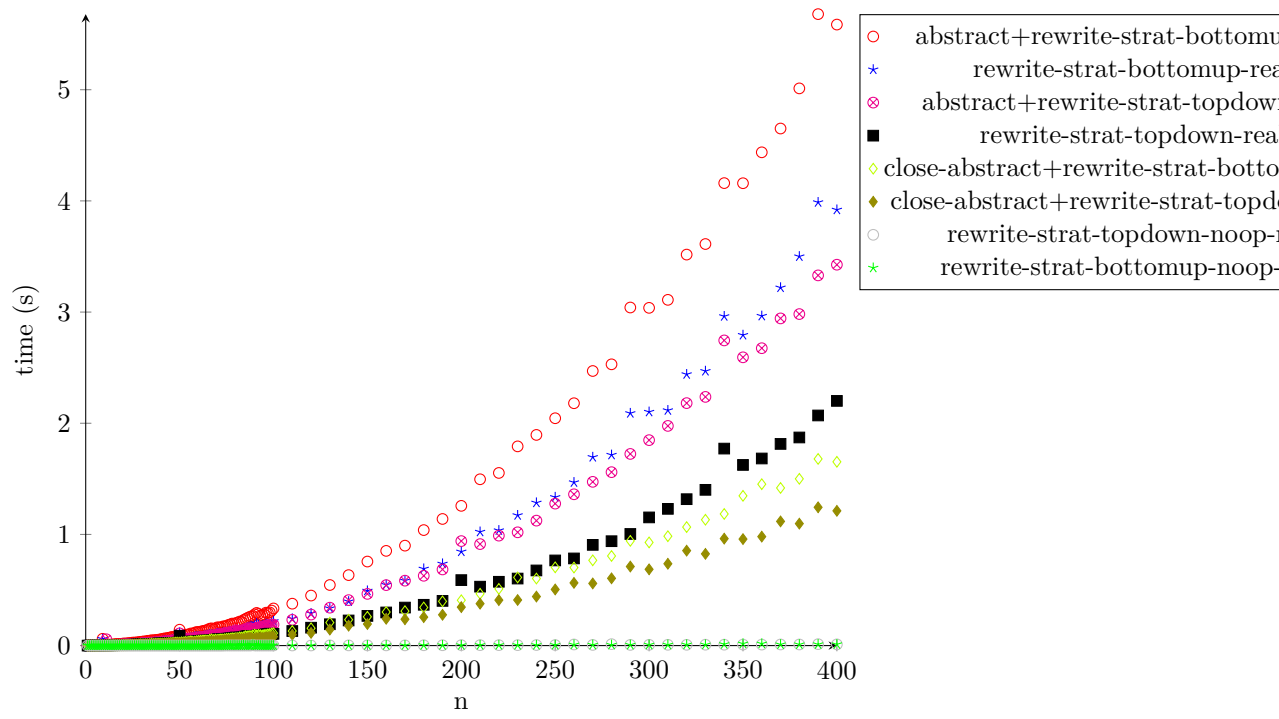Figure 9: timing-rewrite-repeated-app-ssrrewrite-noop param-1-lgn 1
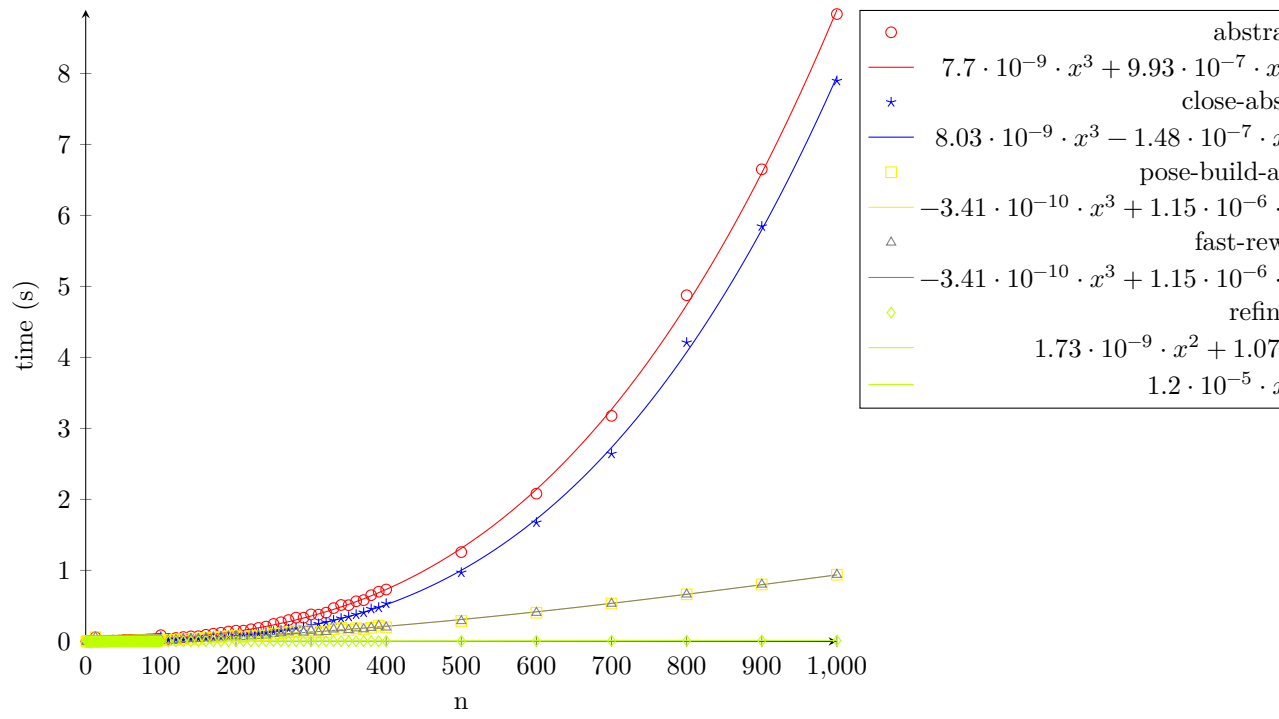
Figure 10: timing-rewrite-repeated-app-rewrite-strat

10

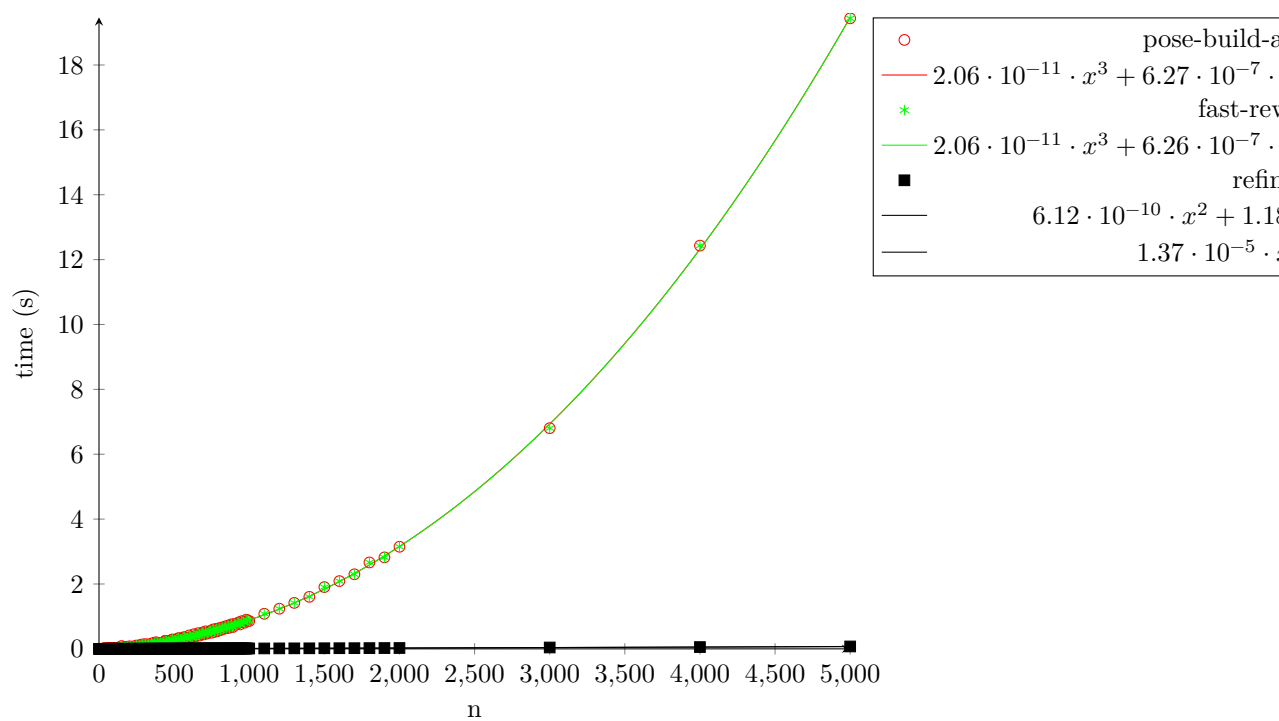Figure 11: timing-rewrite-repeated-app-fast-rewrite

11

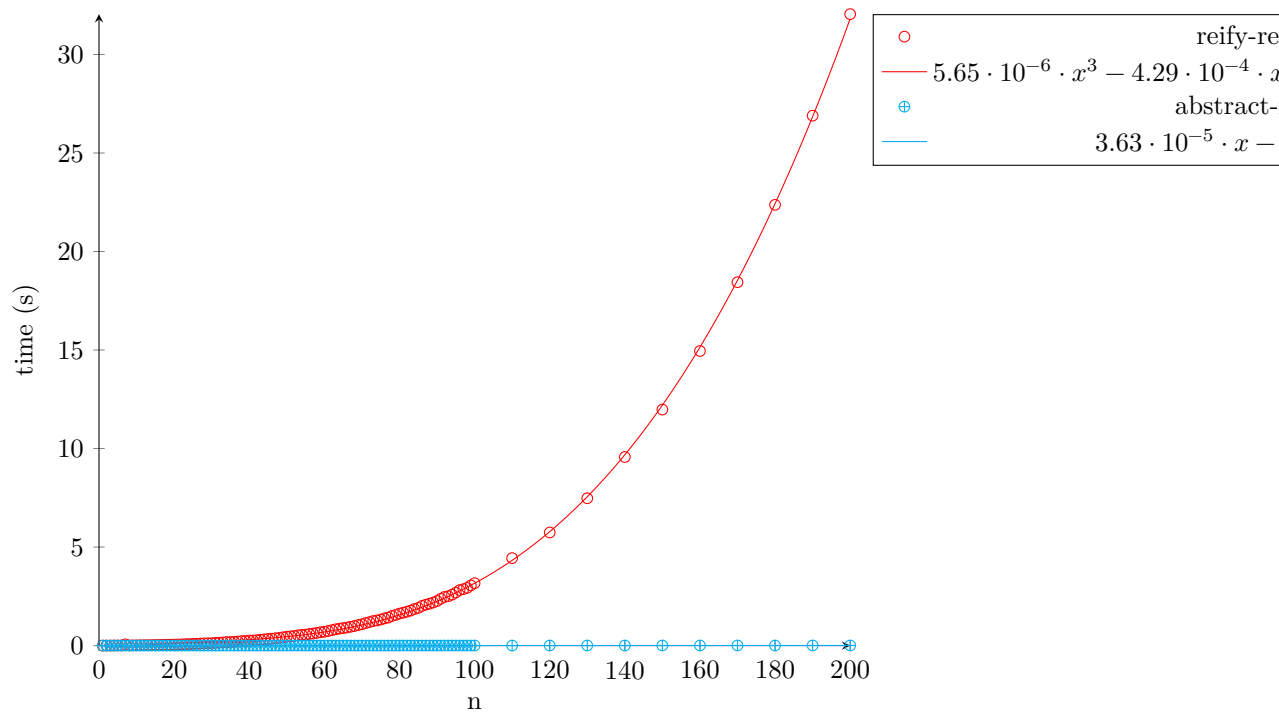Figure 12: timing-rewrite-repeated-app-fast-rewrite-no-abstract

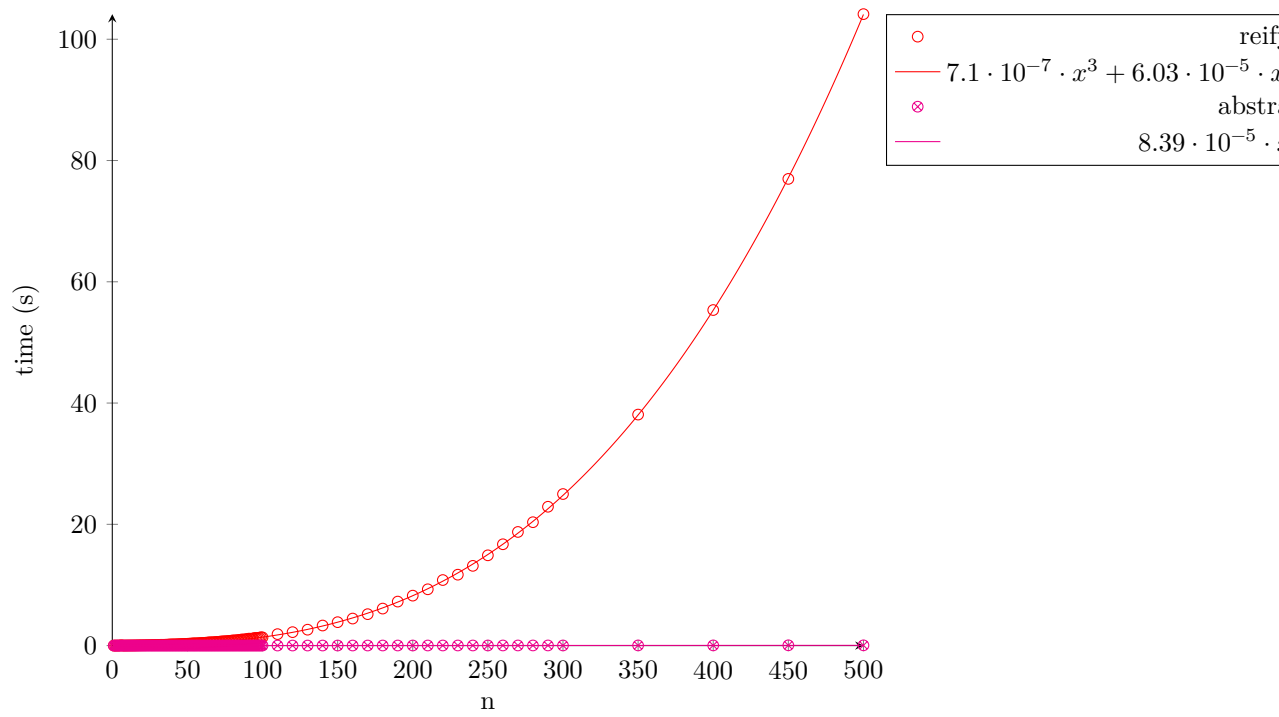Figure 13: timing-typeclass-reification-let-in-HOAS

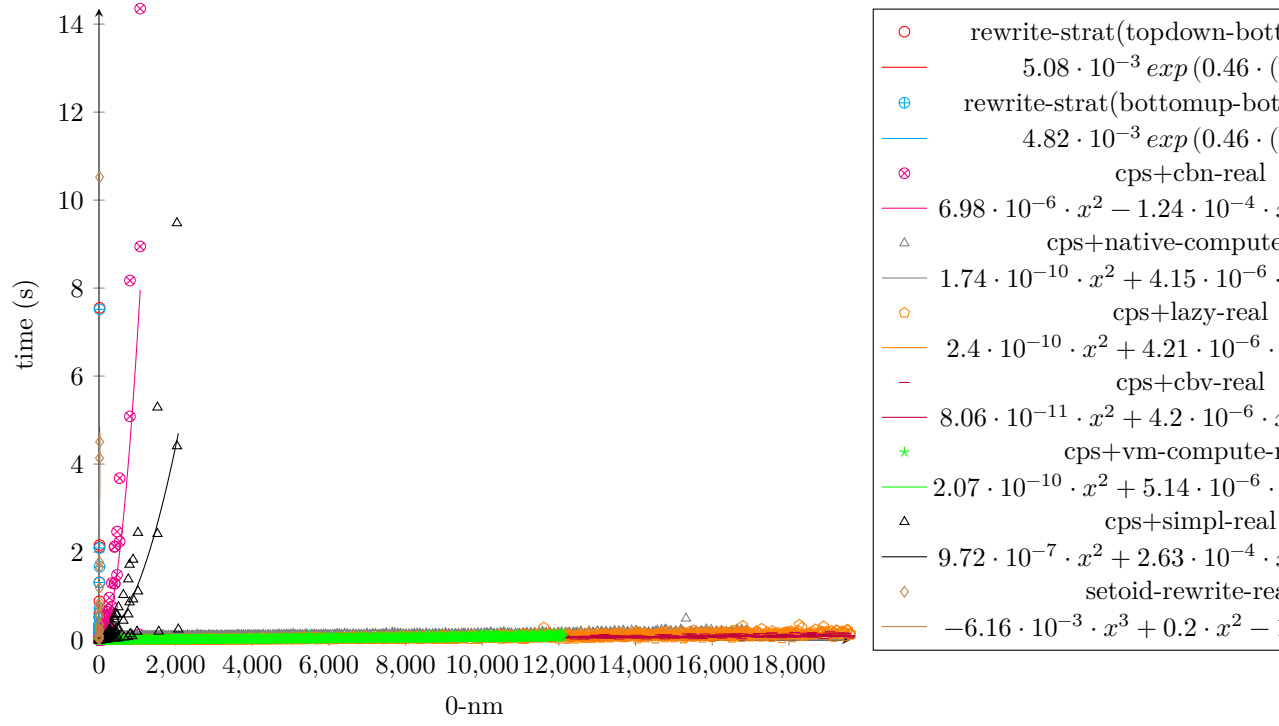Figure 14: timing-typeclass-reification-let-in-PHOAS

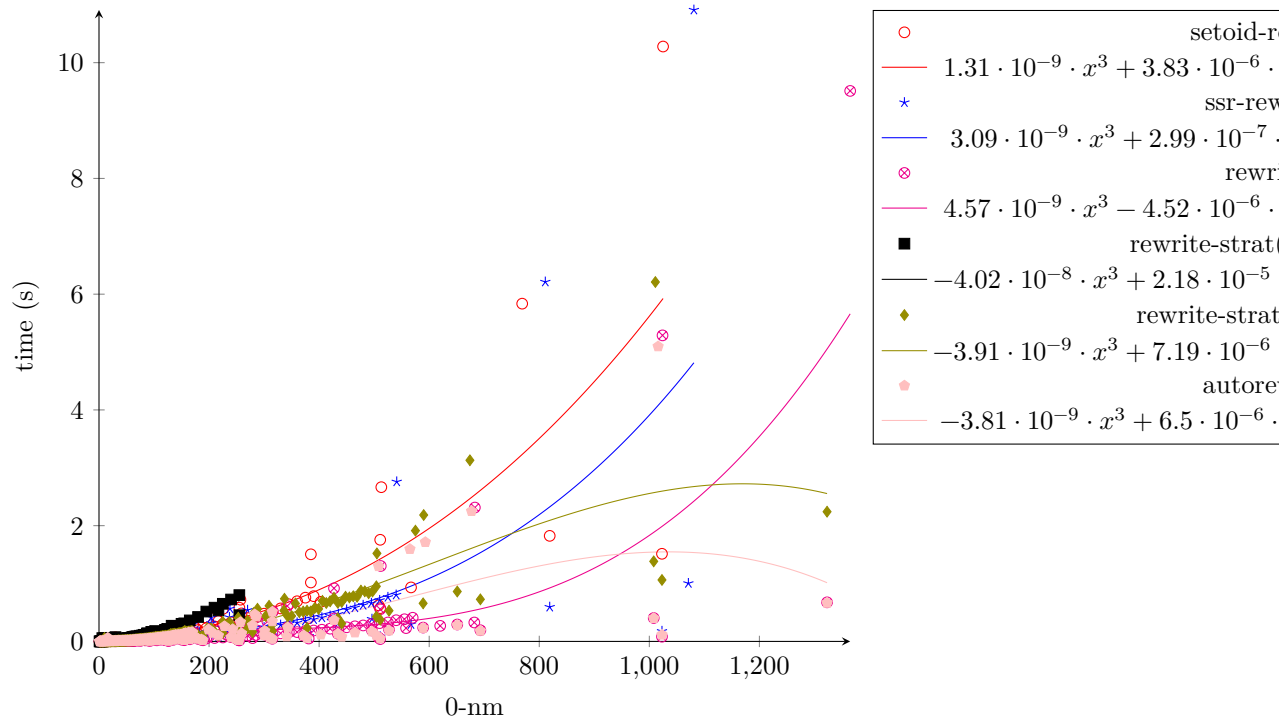Figure 15: timing-rewrite-lift-lets-map param-1-n 1, param-2-m 1

Figure 16: timing-rewrite-plus-0-tree param-1-n 0, param-2-m 1, param-3-input-size 5, param-4-output-size 3, param-5-num-rewrites 1
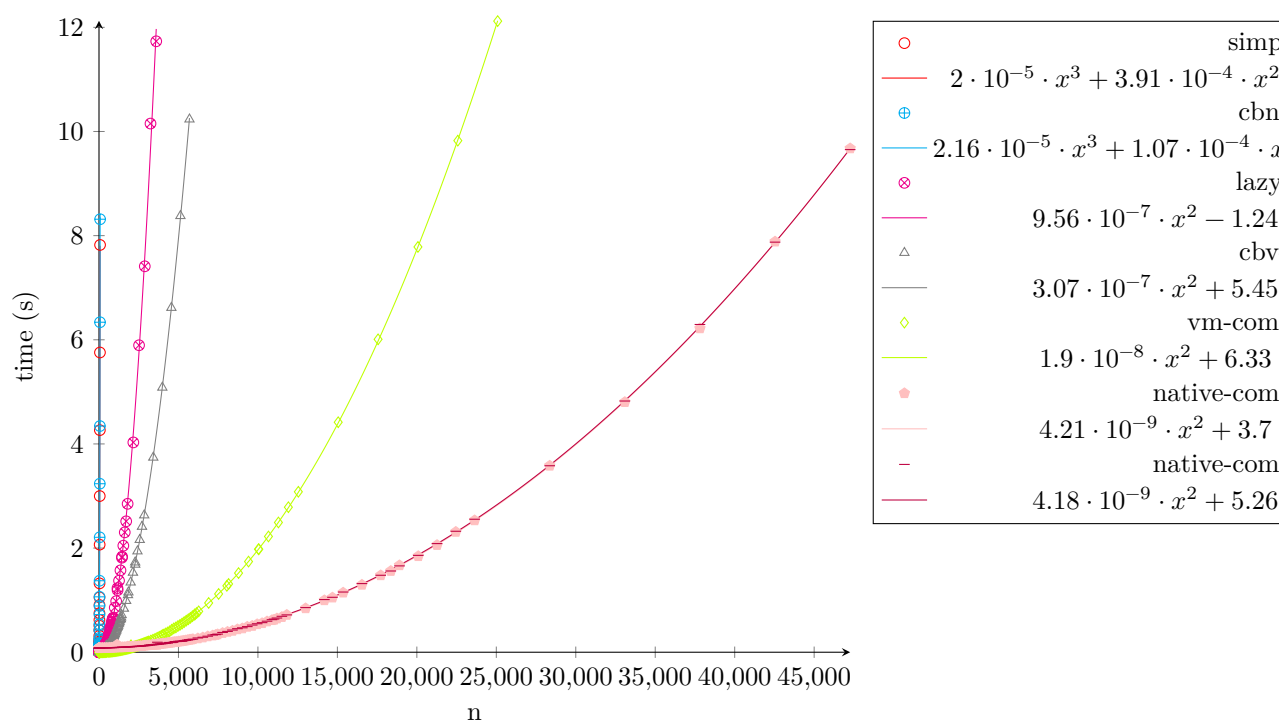
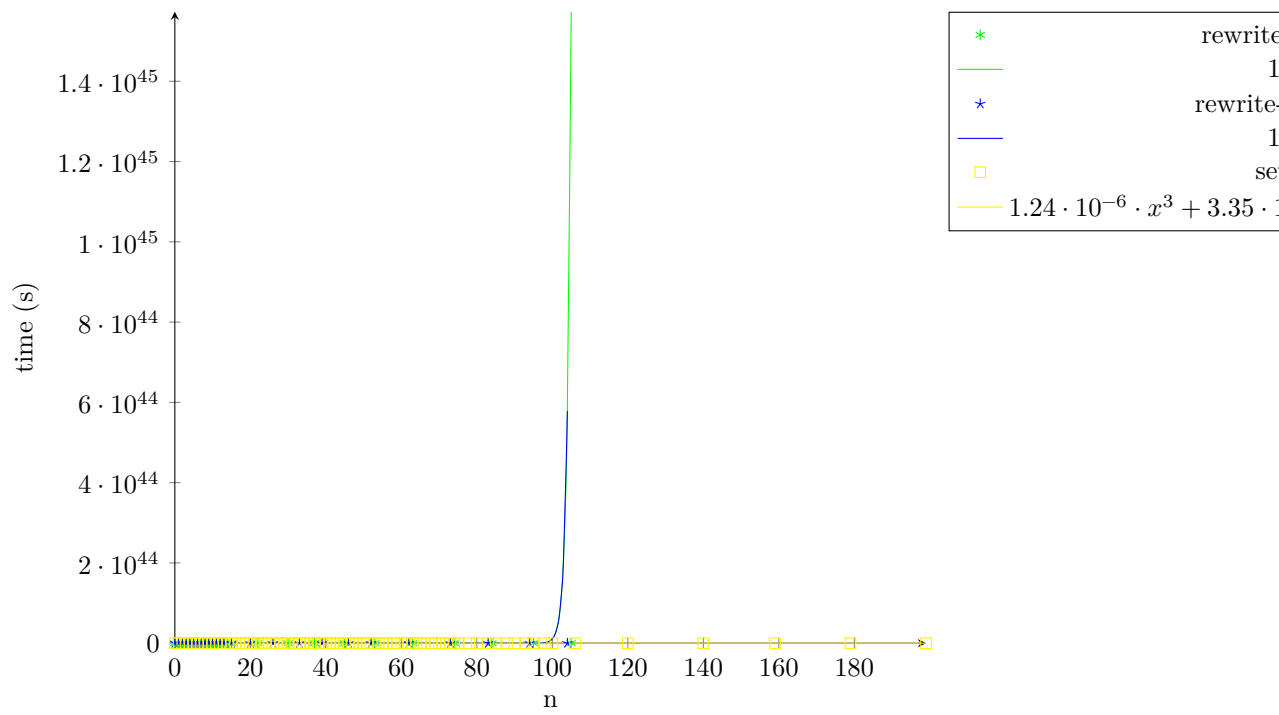Figure 17: timing-sieve-of-eratosthenes
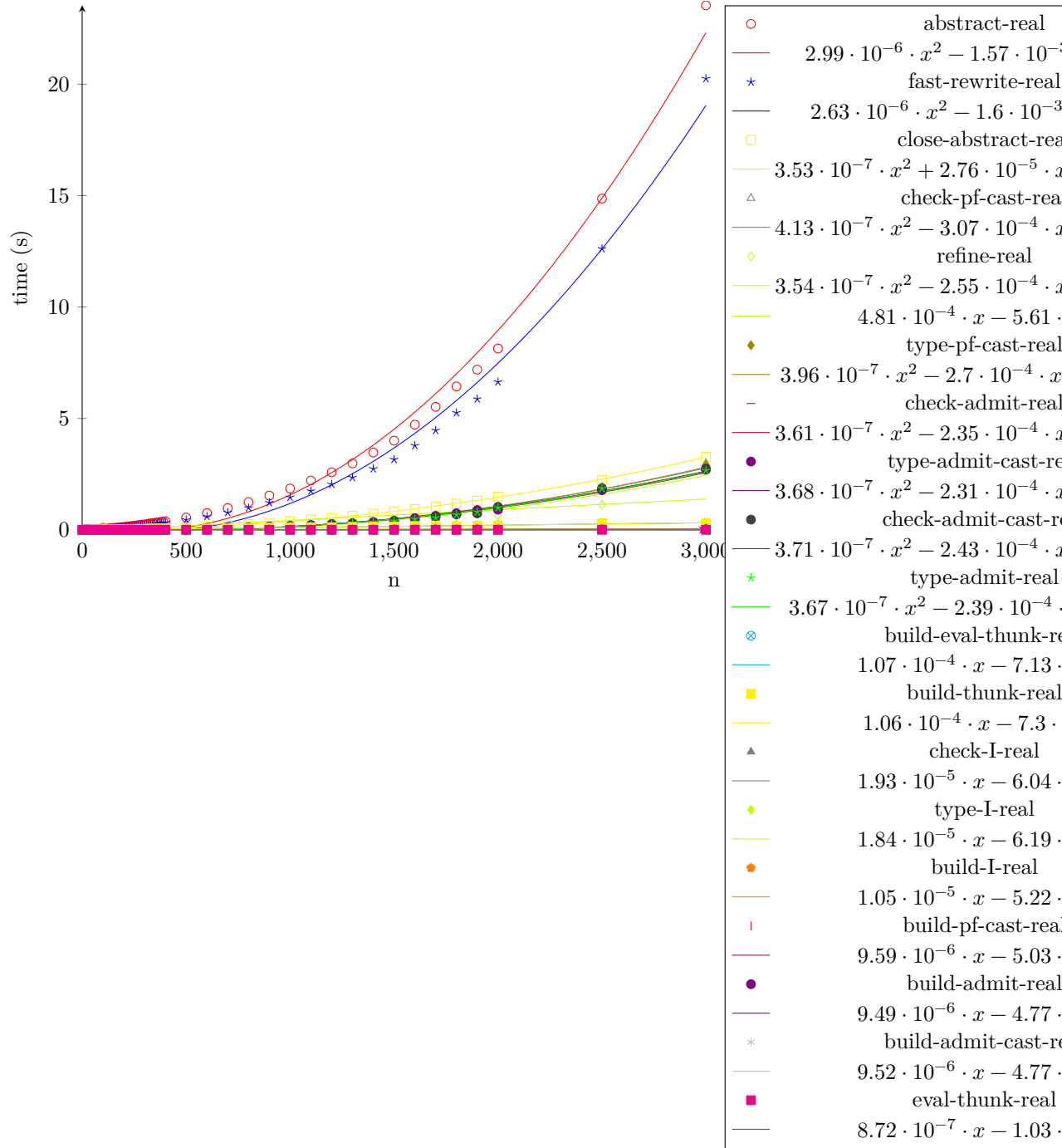
Figure 18: timing-rewrite-under-lets-plus-0

18

Figure 19: timing-rewrite-repeated-app-fast-rewrite-ltac2