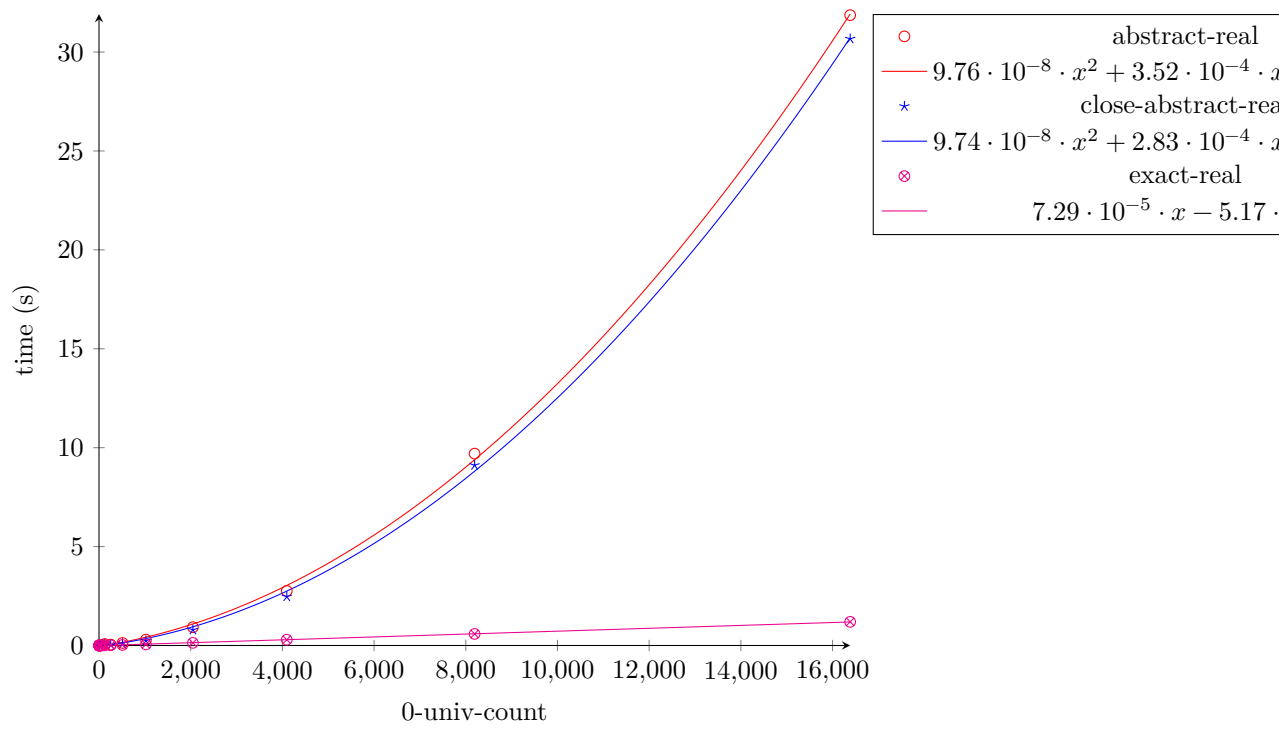Figure 1: timing-pattern

1

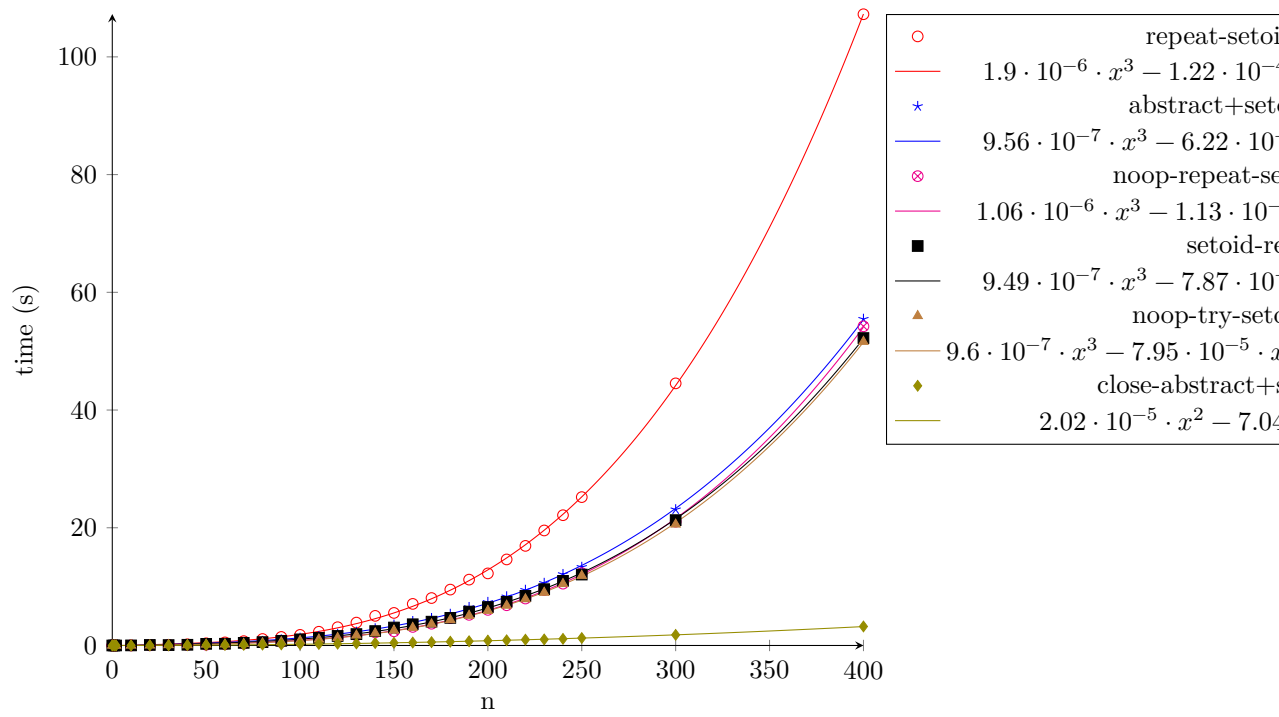Figure 2: timing-n-polymorphic-universes param-1-n 0

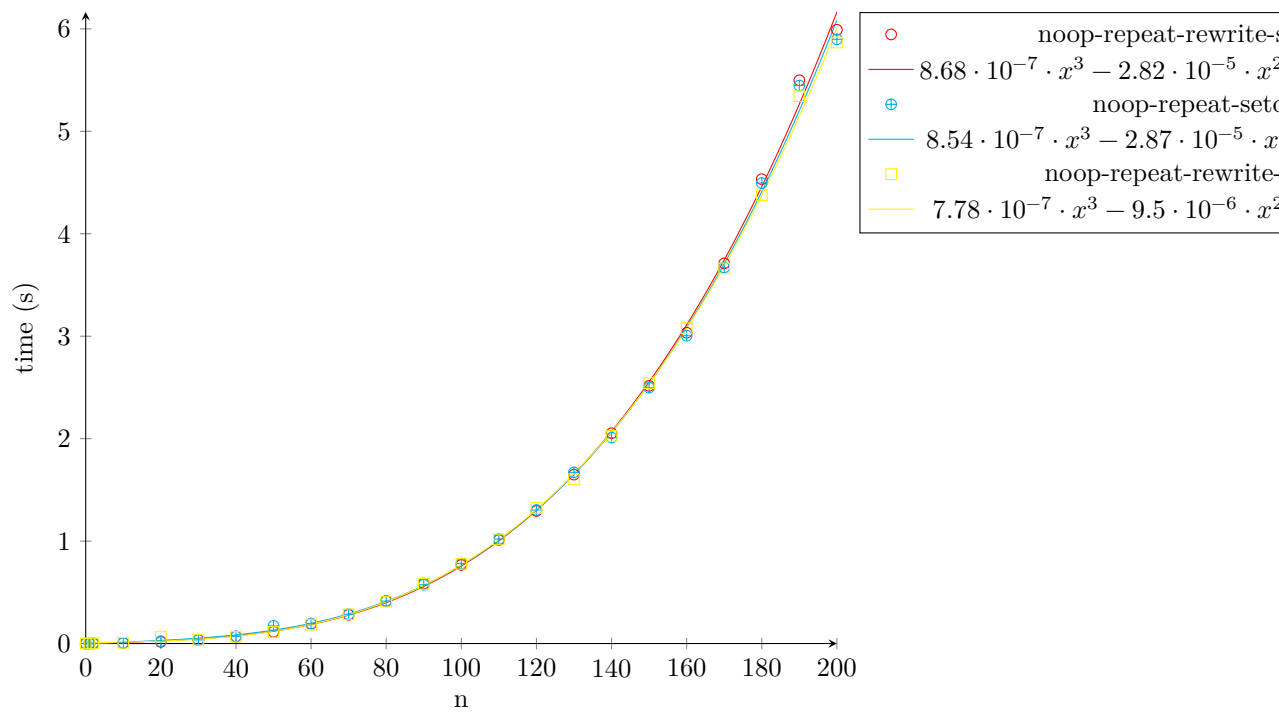Figure 3: timing-repeat-setoid-rewrite-under-binders

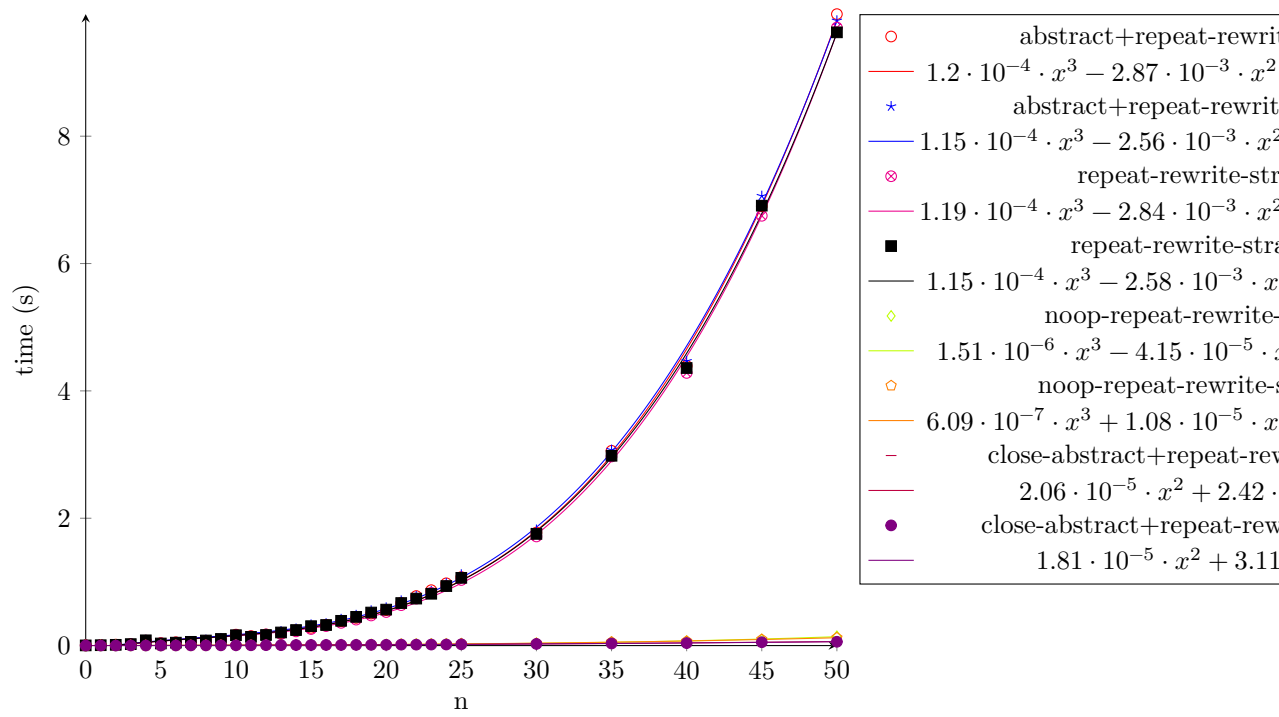Figure 4: timing-repeat-setoid-rewrite-under-binders-noop

4

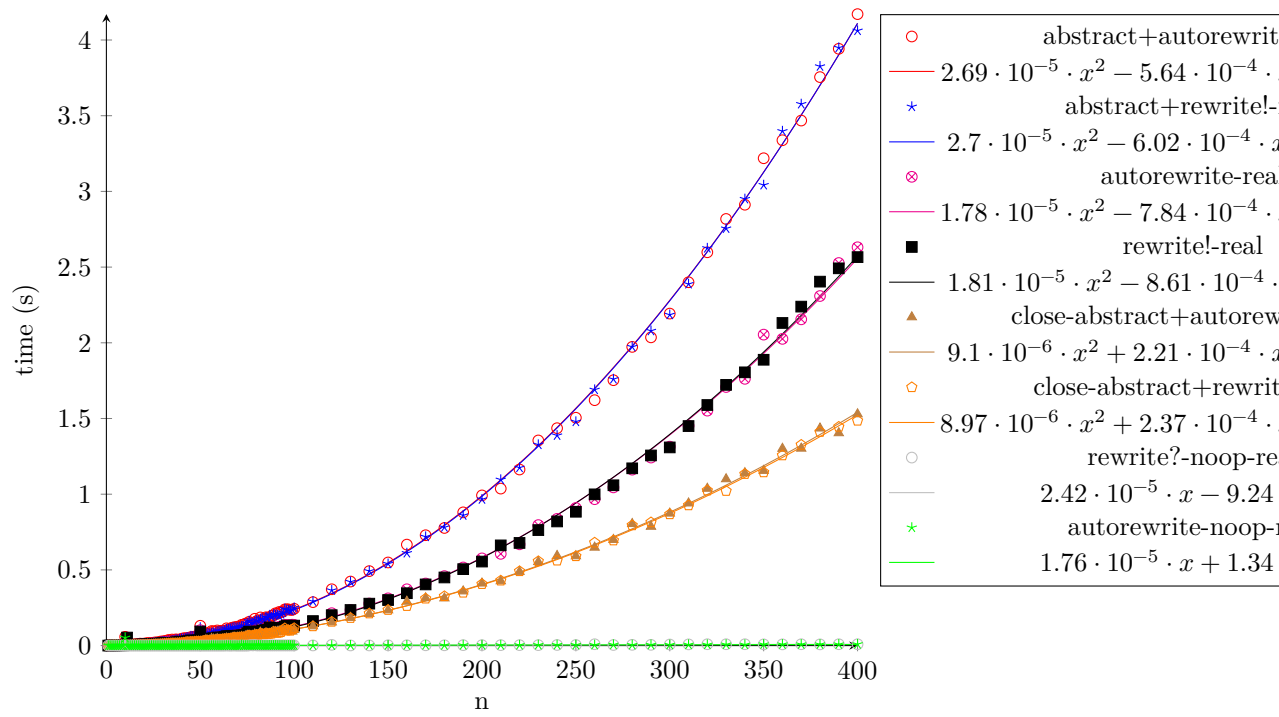Figure 5: timing-rewrite-strat-under-binders
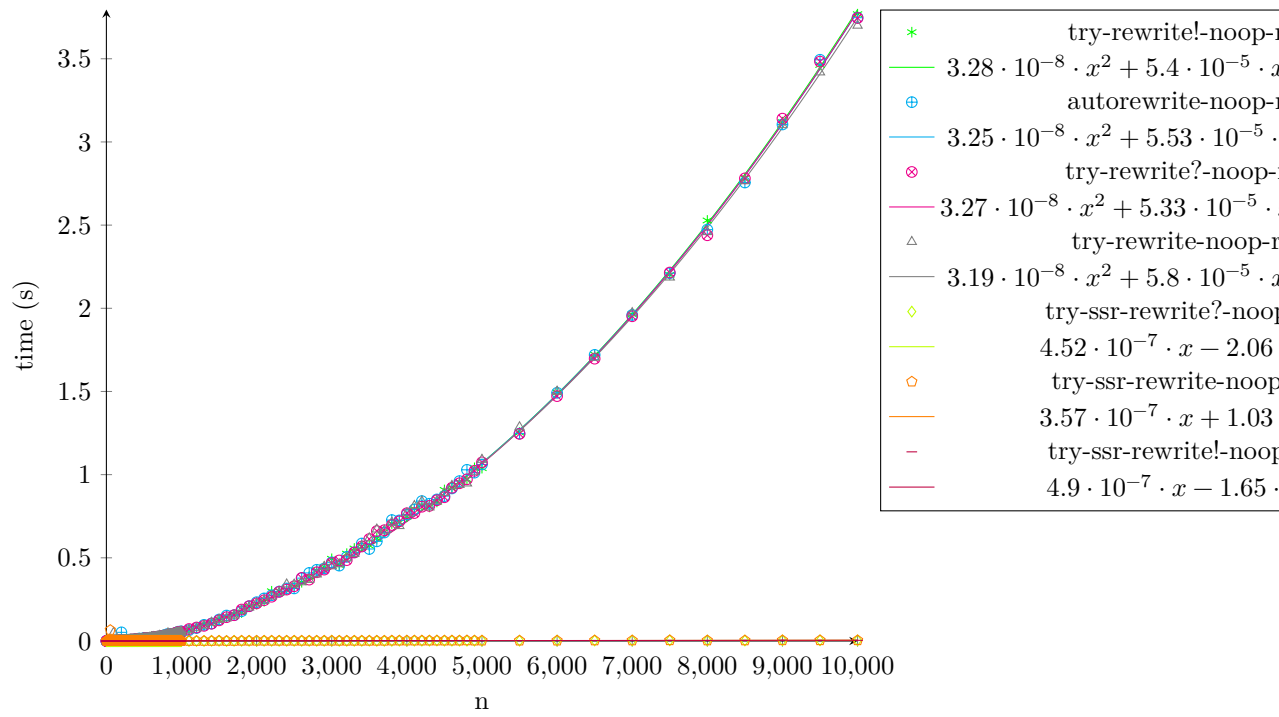
Figure 6: timing-rewrite-repeated-app-autorewrite

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

The legend of the figure contains the following entries:

try-rewrite!-noop-n
$3.28 \cdot 10^{-8} \cdot x^2 + 5.4 \cdot 10^{-5} \cdot x$

autorewrite-noop-n
$3.25 \cdot 10^{-8} \cdot x^2 + 5.53 \cdot 10^{-5} \cdot x$

try-rewrite?-noop-n
$3.27 \cdot 10^{-8} \cdot x^2 + 5.33 \cdot 10^{-5} \cdot x$

try-rewrite-noop-n
$3.19 \cdot 10^{-8} \cdot x^2 + 5.8 \cdot 10^{-5} \cdot x$

try-ssr-rewrite?-noop
$4.52 \cdot 10^{-7} \cdot x - 2.06$

try-ssr-rewrite-noop
$3.57 \cdot 10^{-7} \cdot x + 1.03$

try-ssr-rewrite!-noop
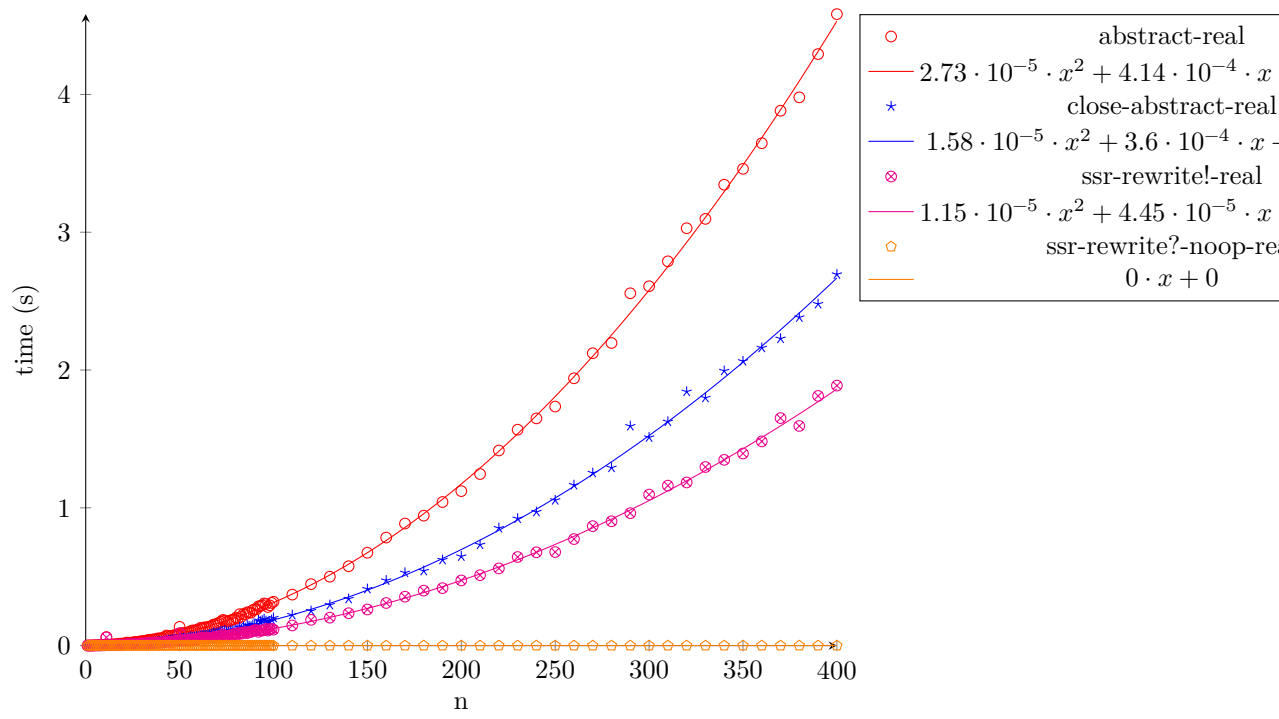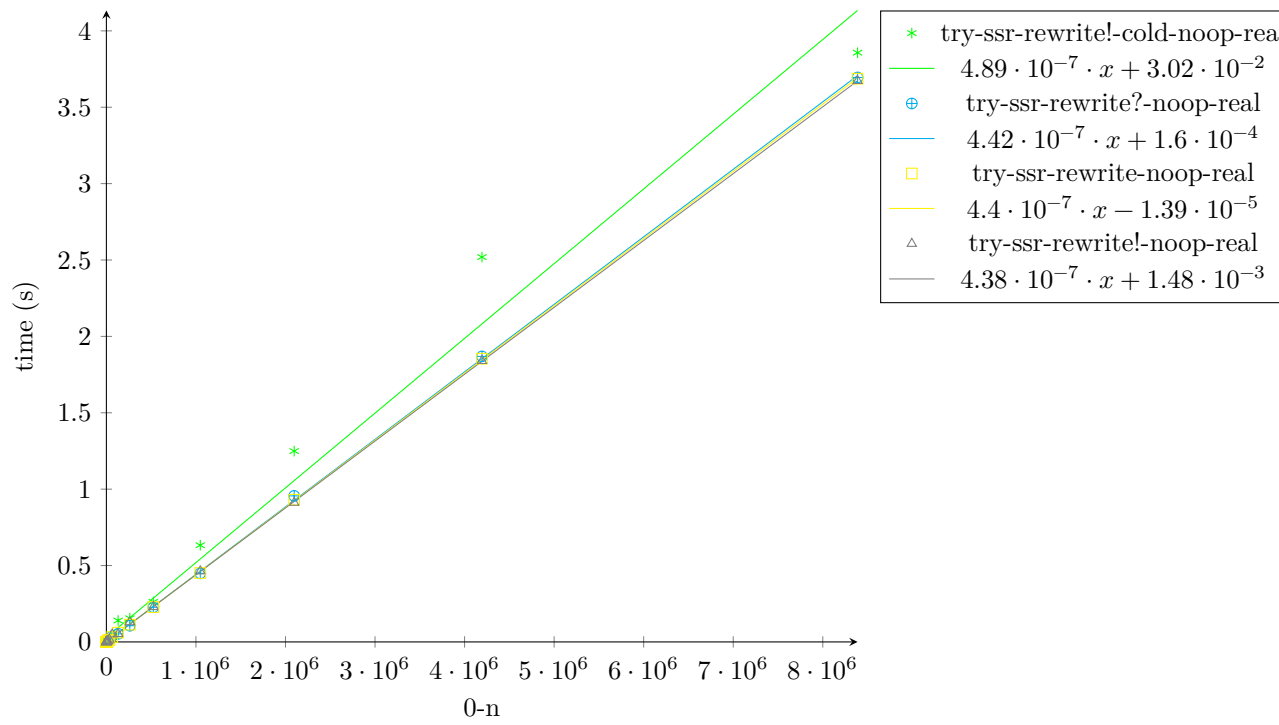$4.9 \cdot 10^{-7} \cdot x - 1.65$

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

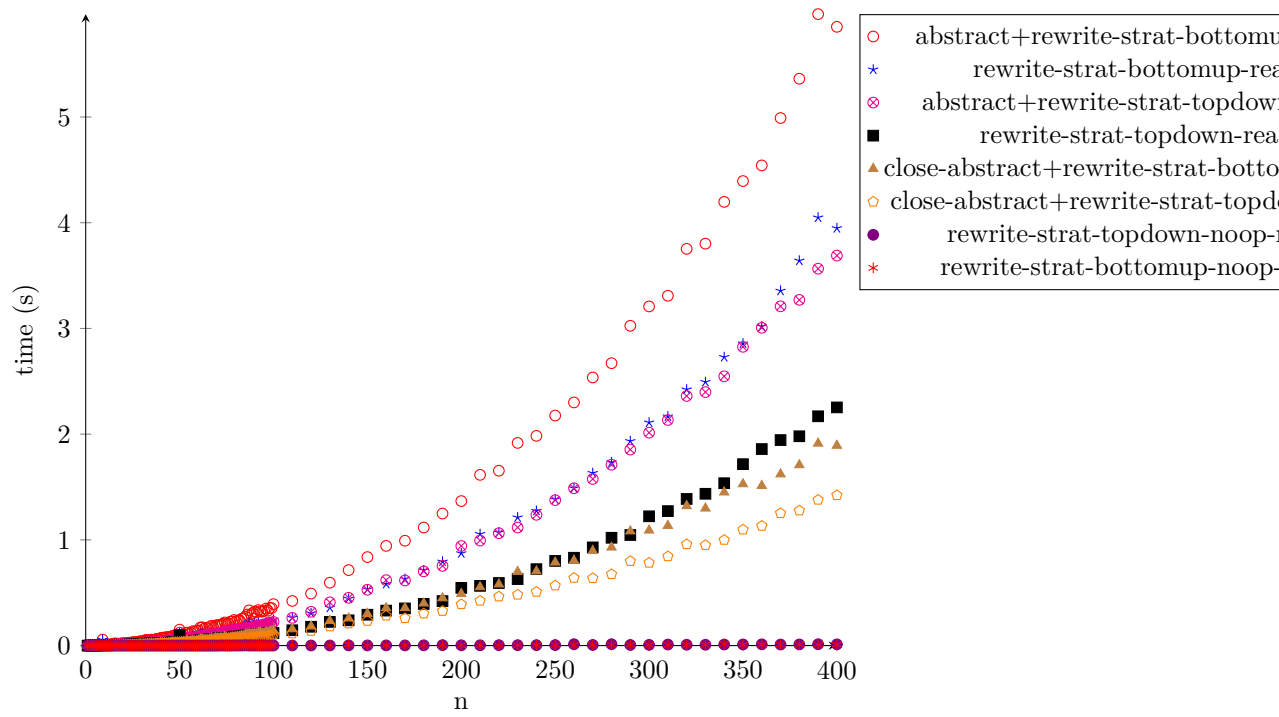Figure 9: timing-rewrite-repeated-app-ssrrewrite-noop param-1-lgn 1

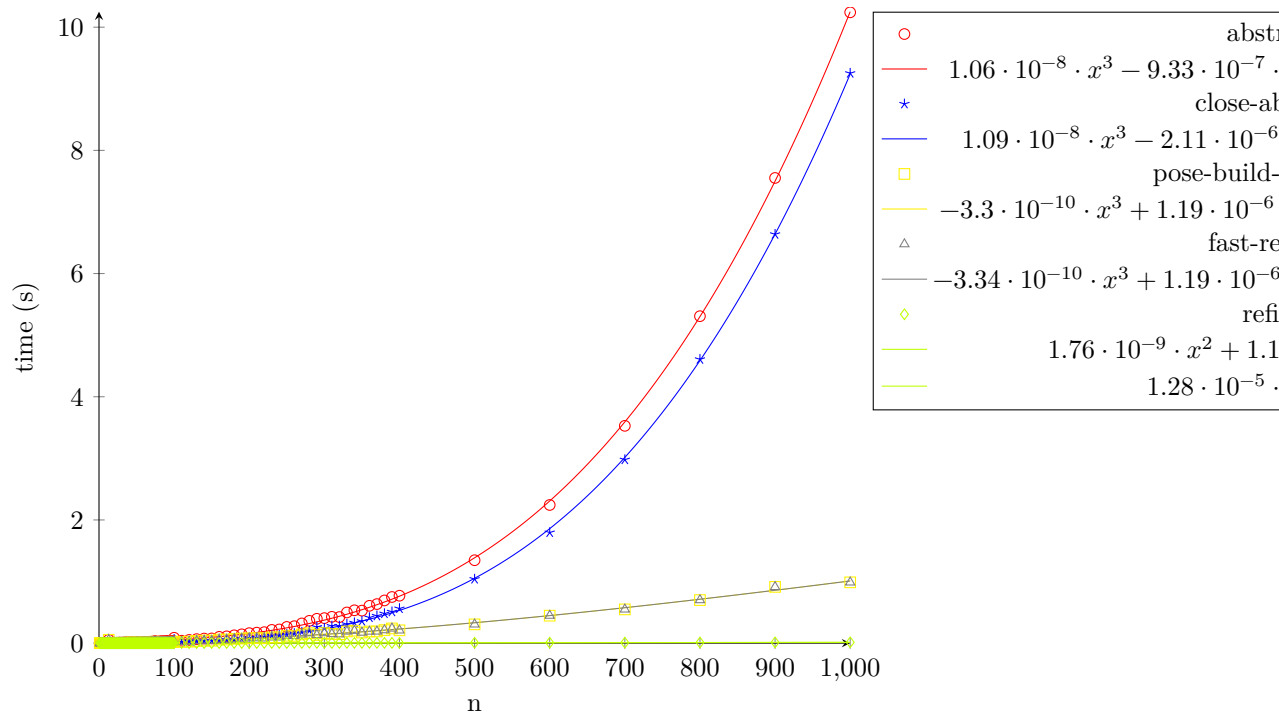Figure 10: timing-rewrite-repeated-app-rewrite-strat

The legend labels appearing to the right of the plot read:

- abstract+rewrite-strat-bottomu...
- rewrite-strat-bottomup-rea...
- abstract+rewrite-strat-topdow...
- rewrite-strat-topdown-rea...
- close-abstract+rewrite-strat-botto...
- close-abstract+rewrite-strat-topd...
- rewrite-strat-topdown-noop-...
- rewrite-strat-bottomup-noop-...

10

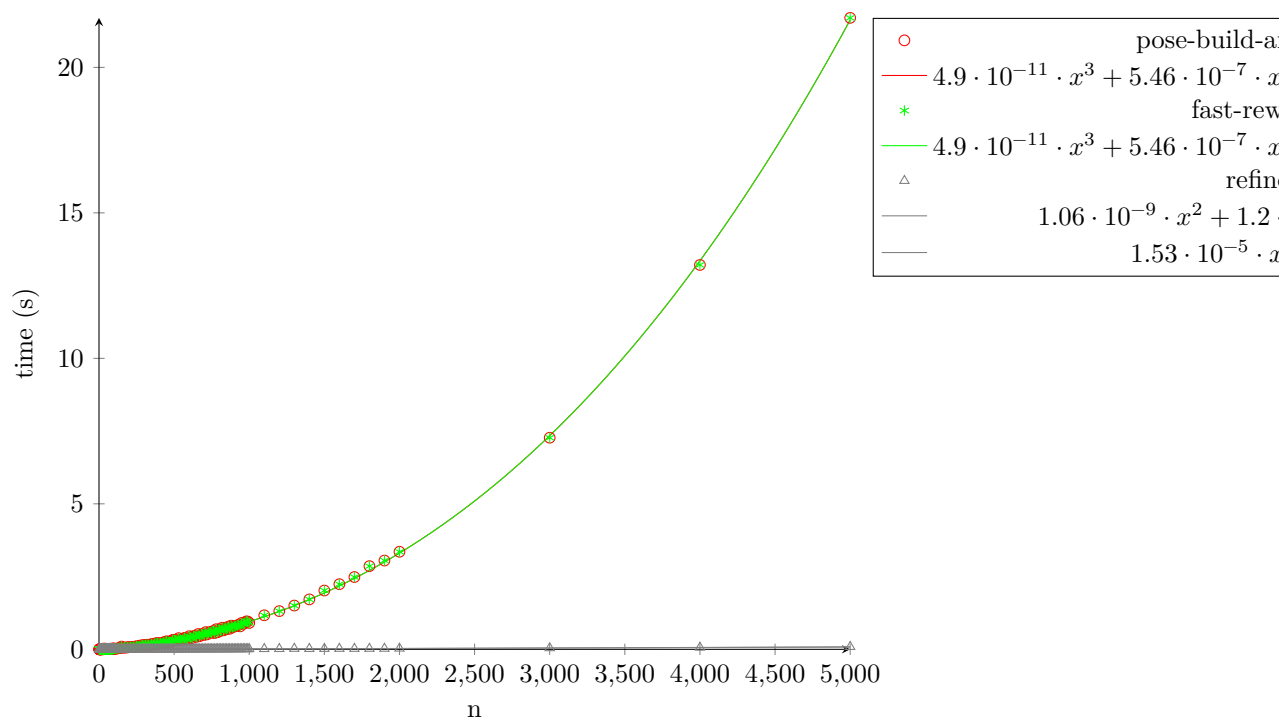Figure 11: timing-rewrite-repeated-app-fast-rewrite

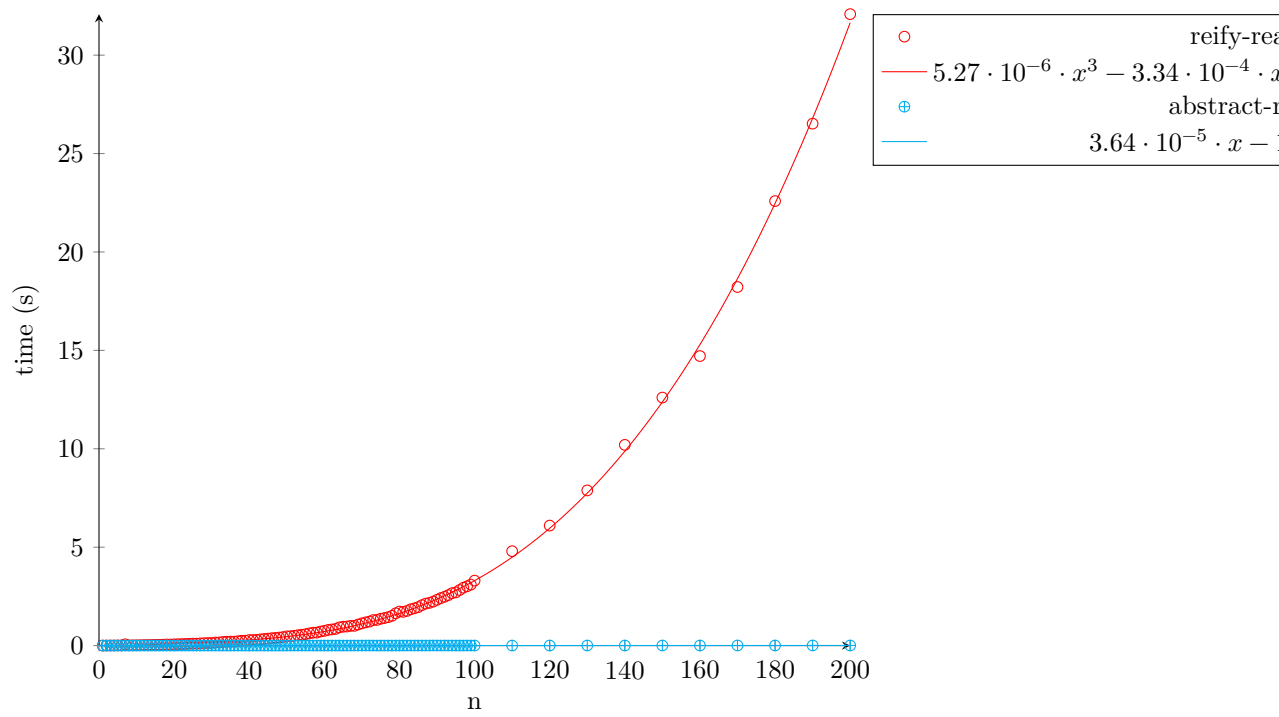Figure 12: timing-rewrite-repeated-app-fast-rewrite-no-abstract

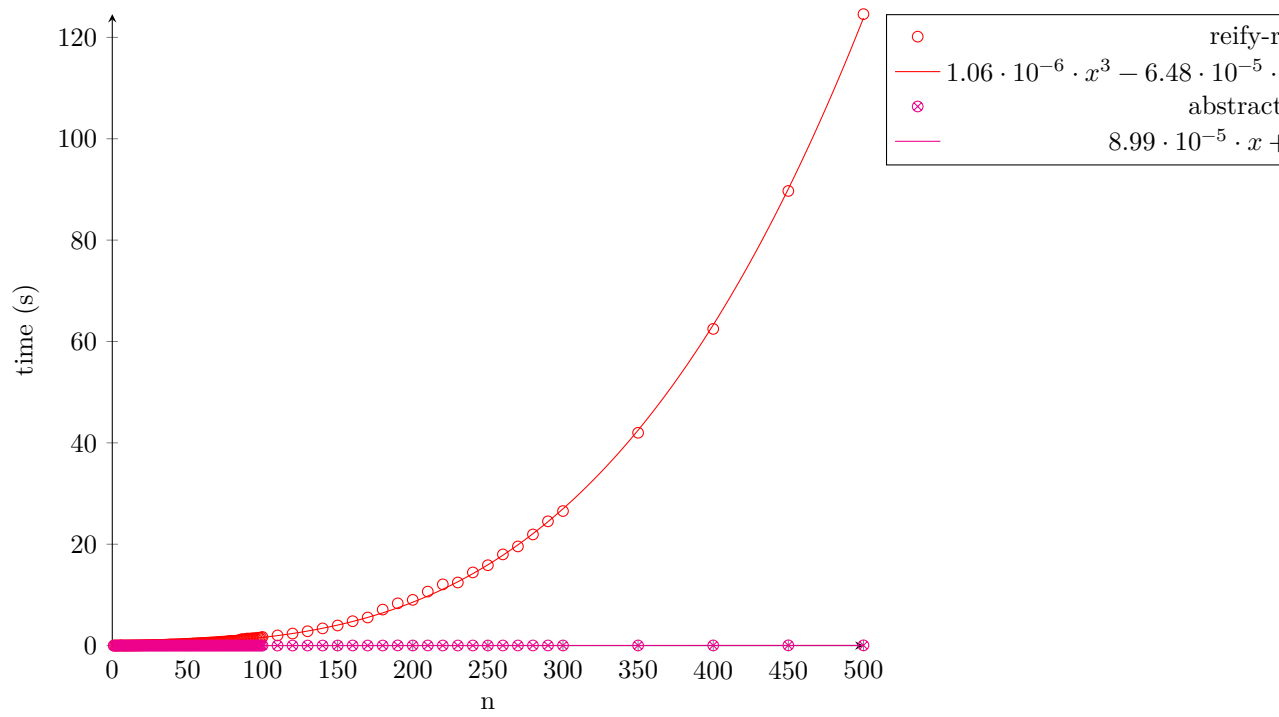Figure 13: timing-typeclass-reification-let-in-HOAS

13

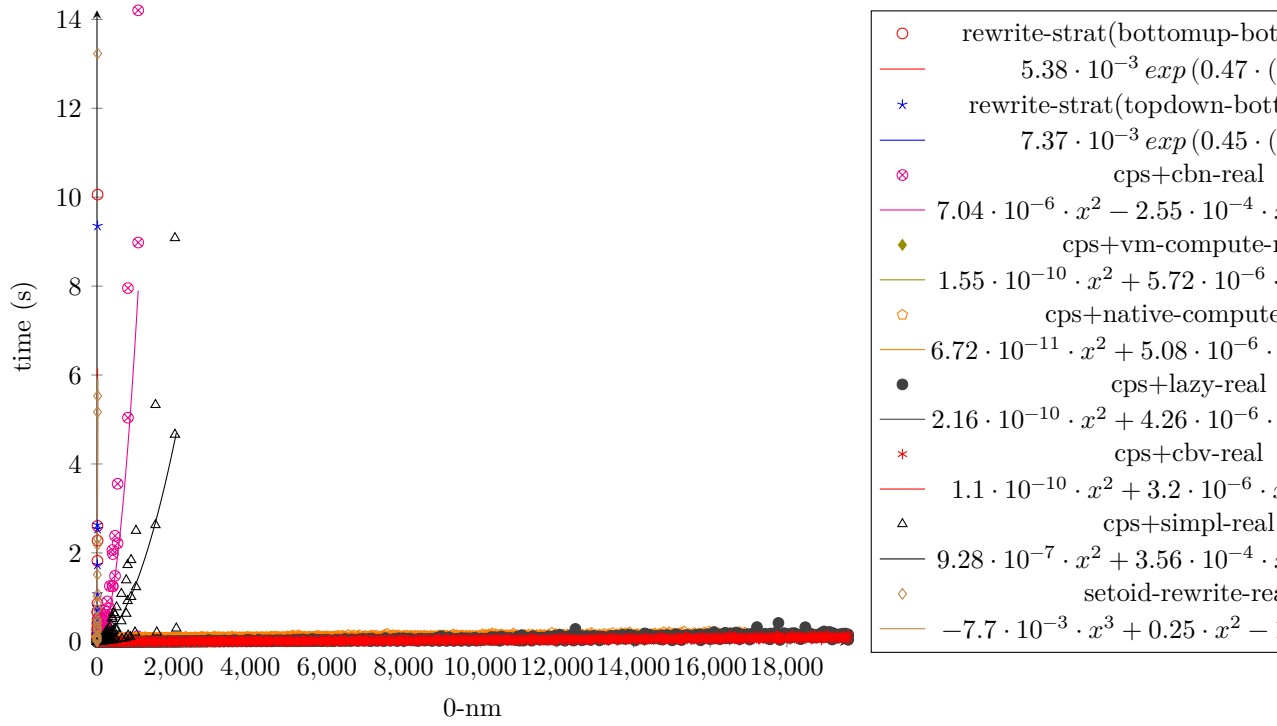Figure 14: timing-typeclass-reification-let-in-PHOAS

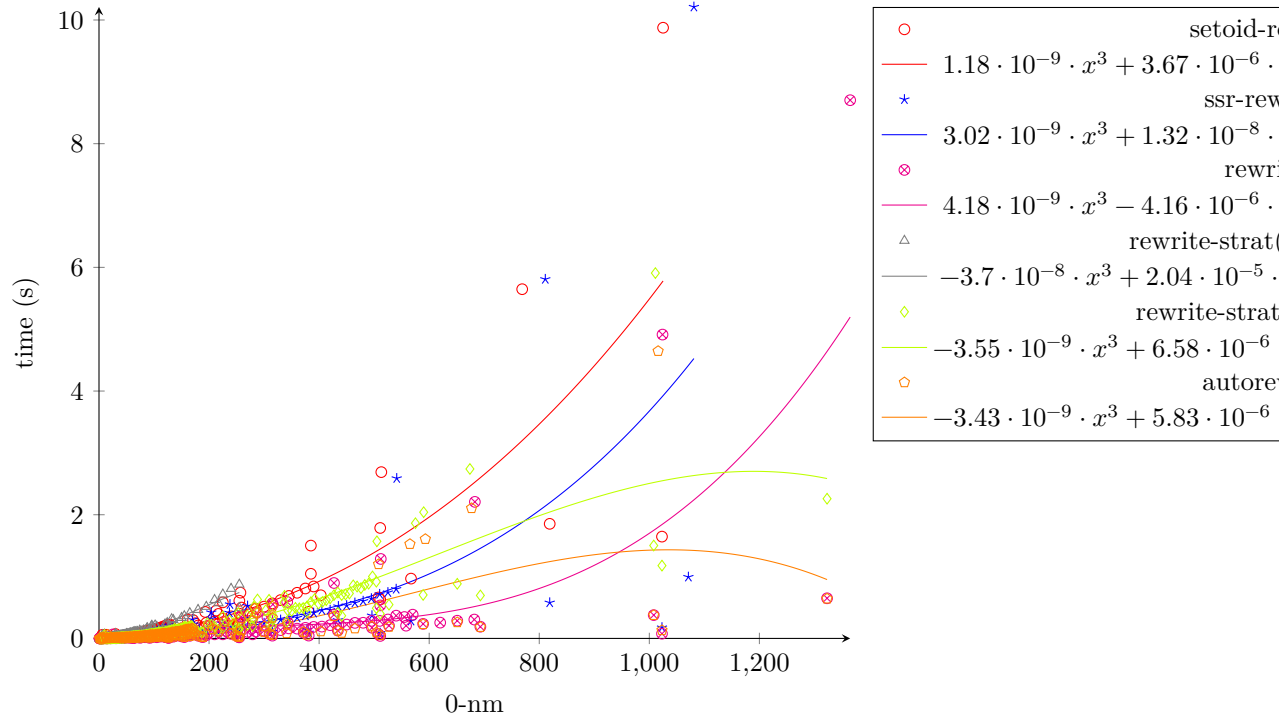Figure 15: timing-rewrite-lift-lets-map param-1-n 1, param-2-m 1

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
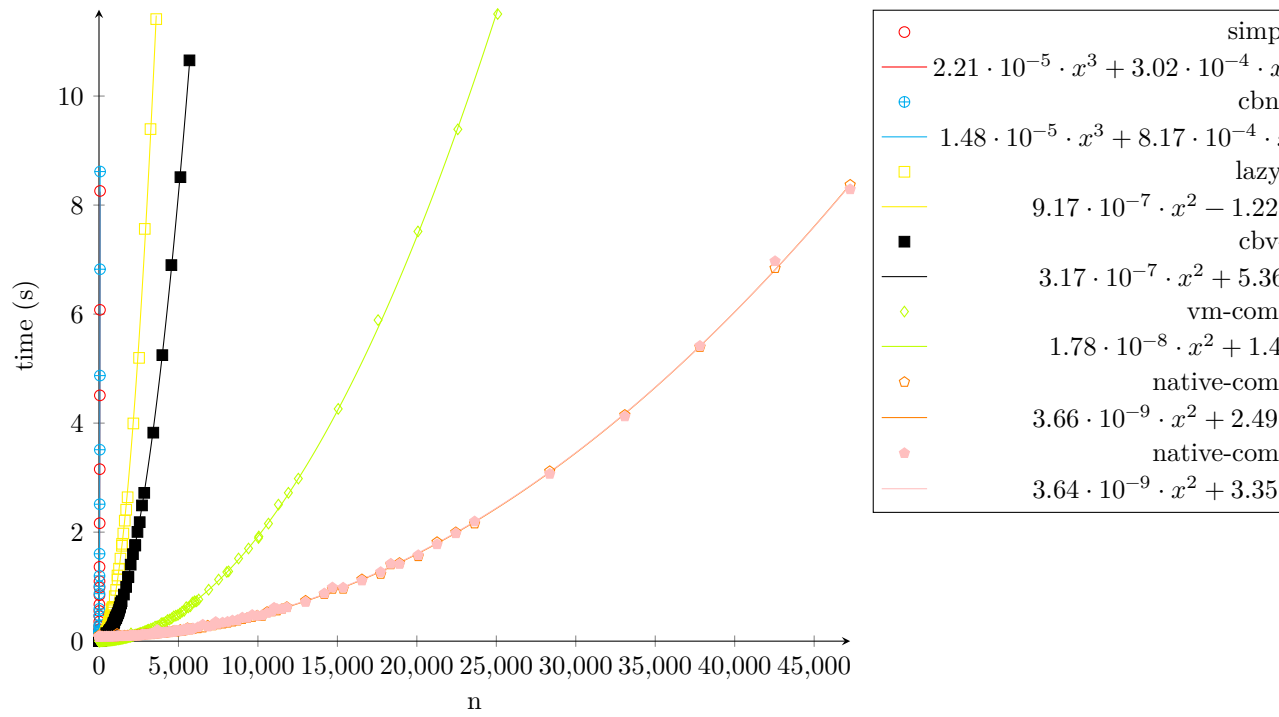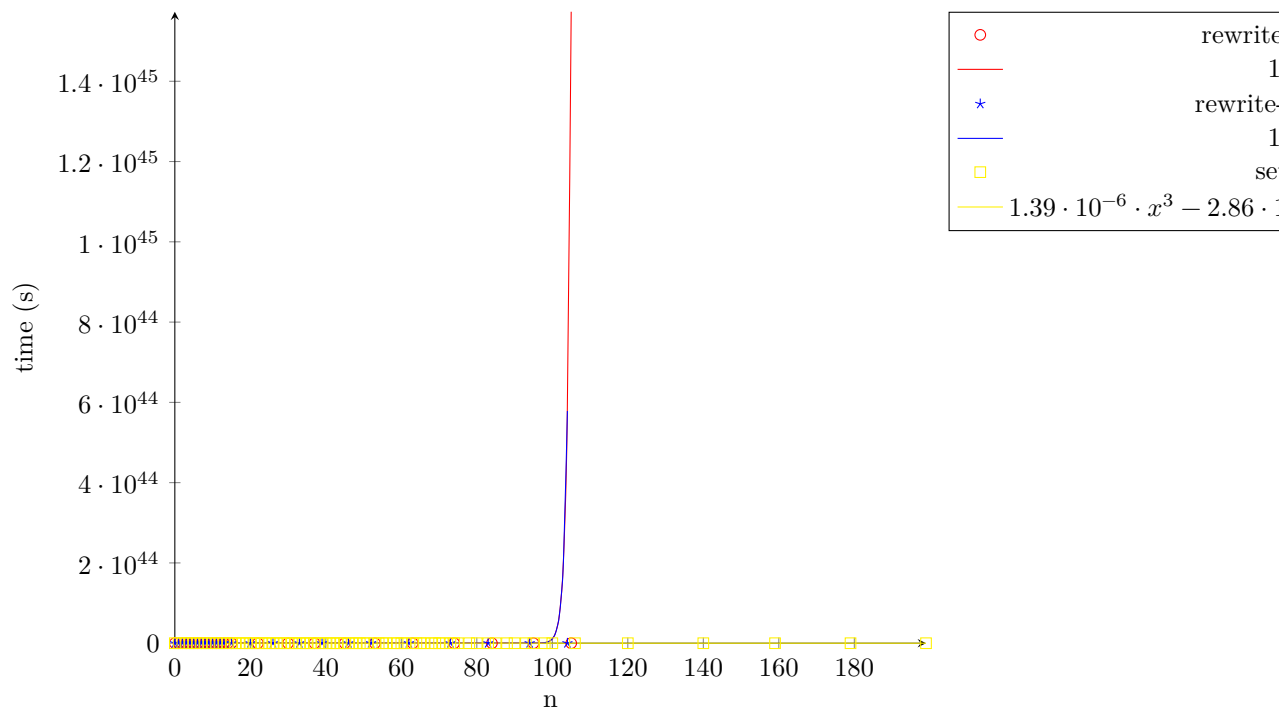
Figure 17: timing-sieve-of-eratosthenes
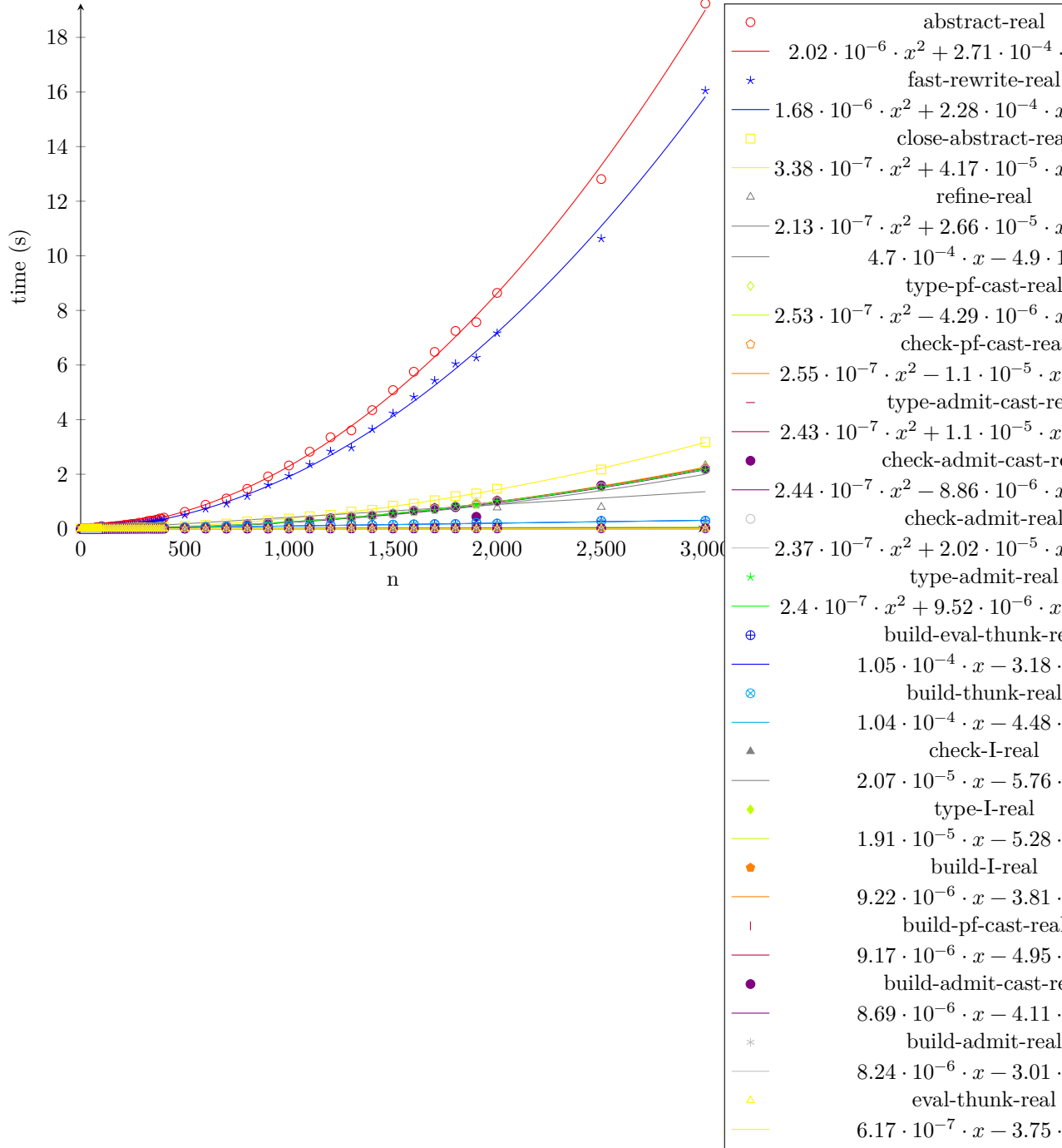
Figure 18: timing-rewrite-under-lets-plus-0

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