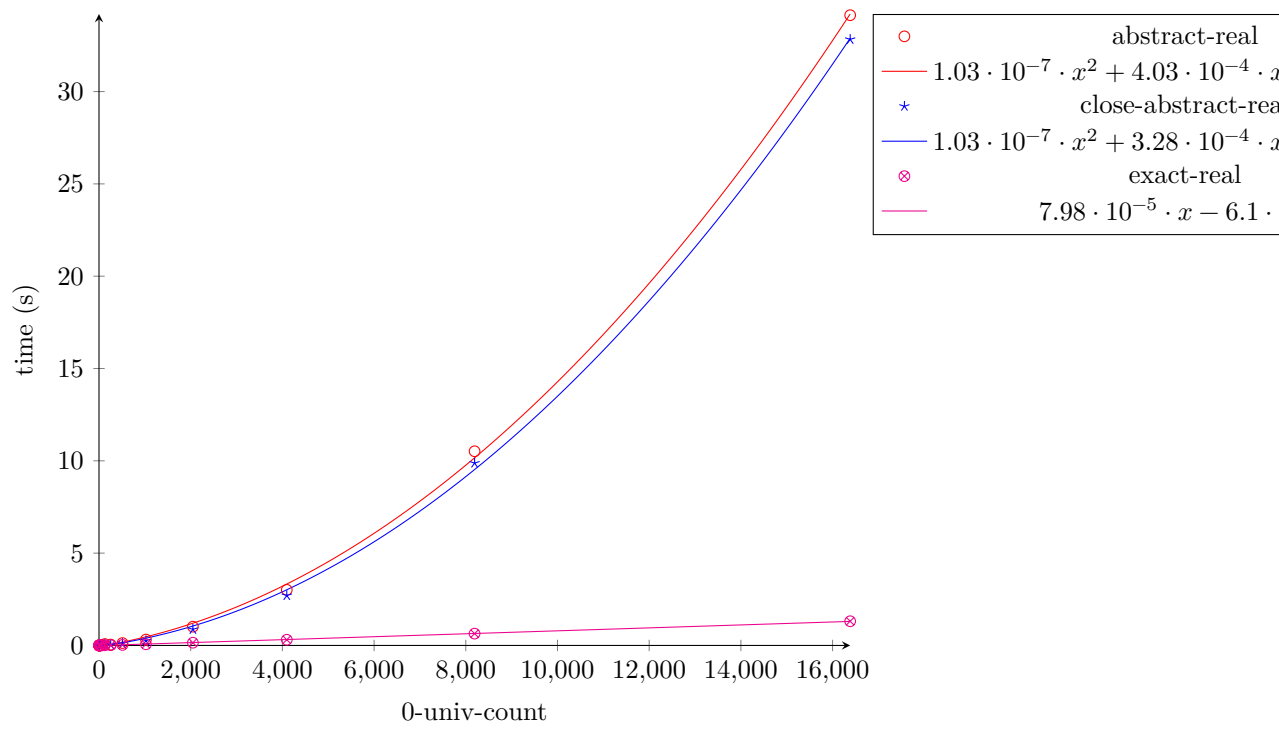Figure 1: timing-pattern

1

Figure 2: timing-n-polymorphic-universes param-1-n 0
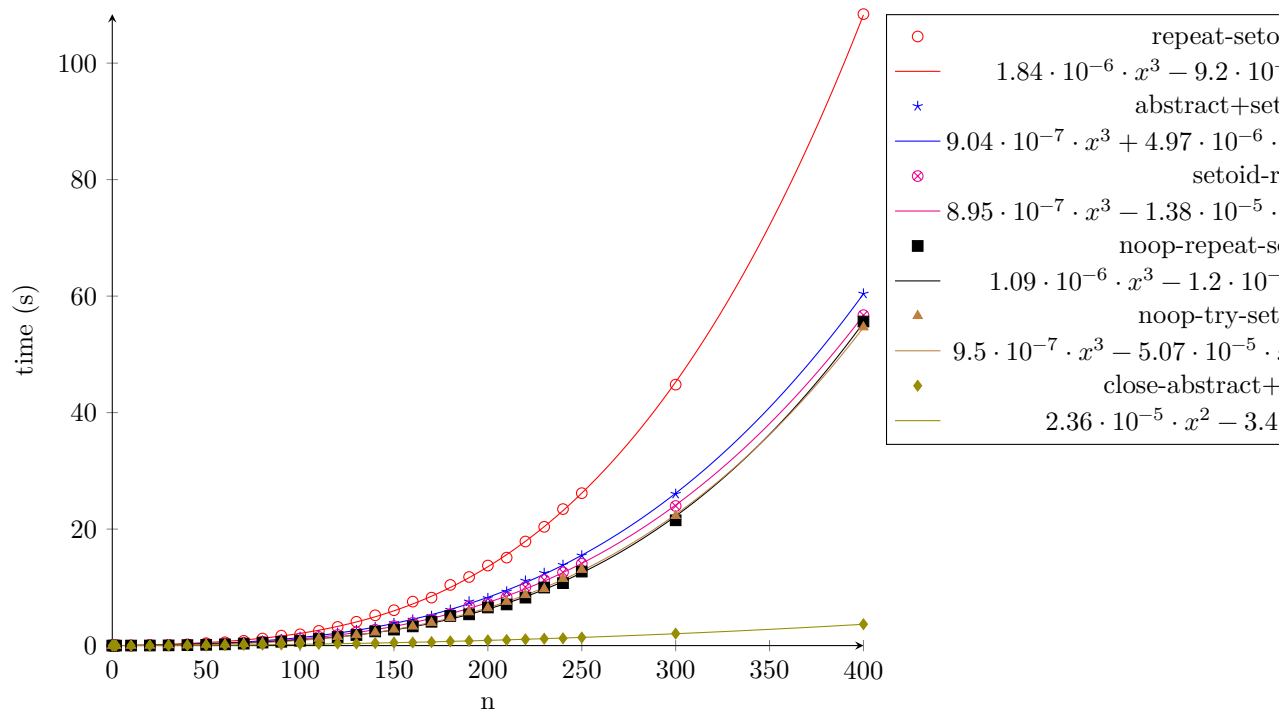
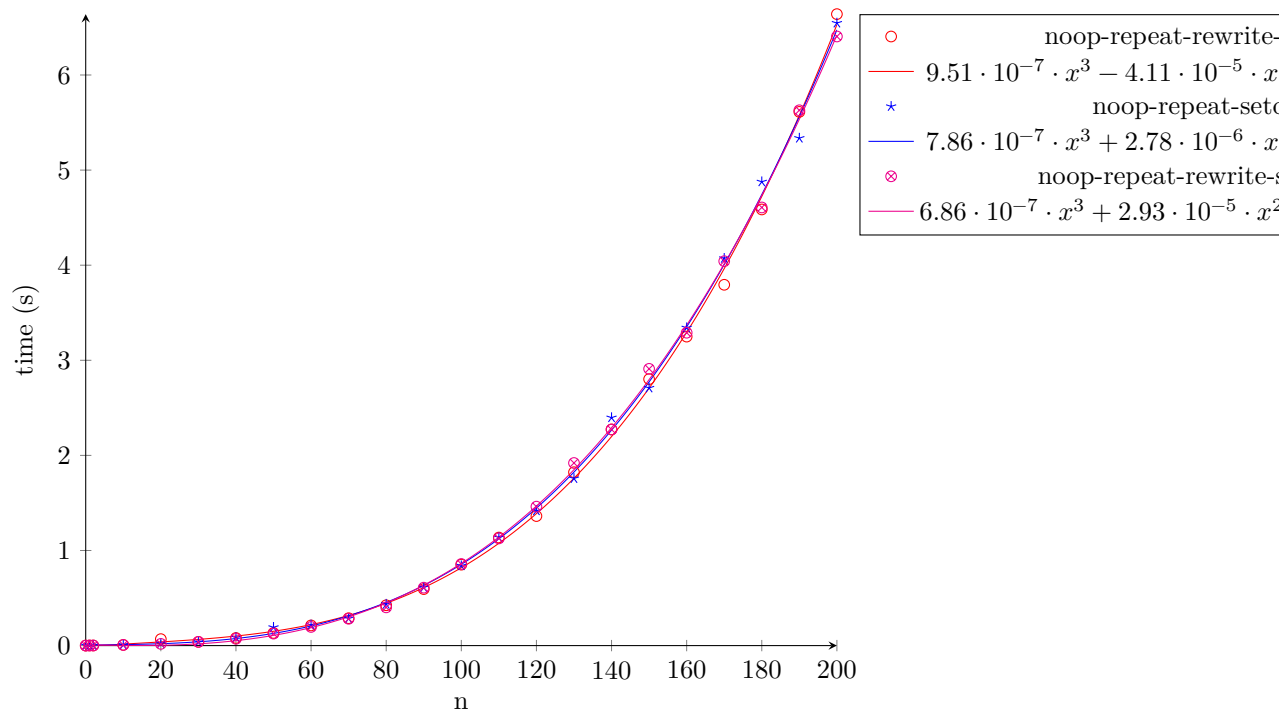Figure 3: timing-repeat-setoid-rewrite-under-binders

3

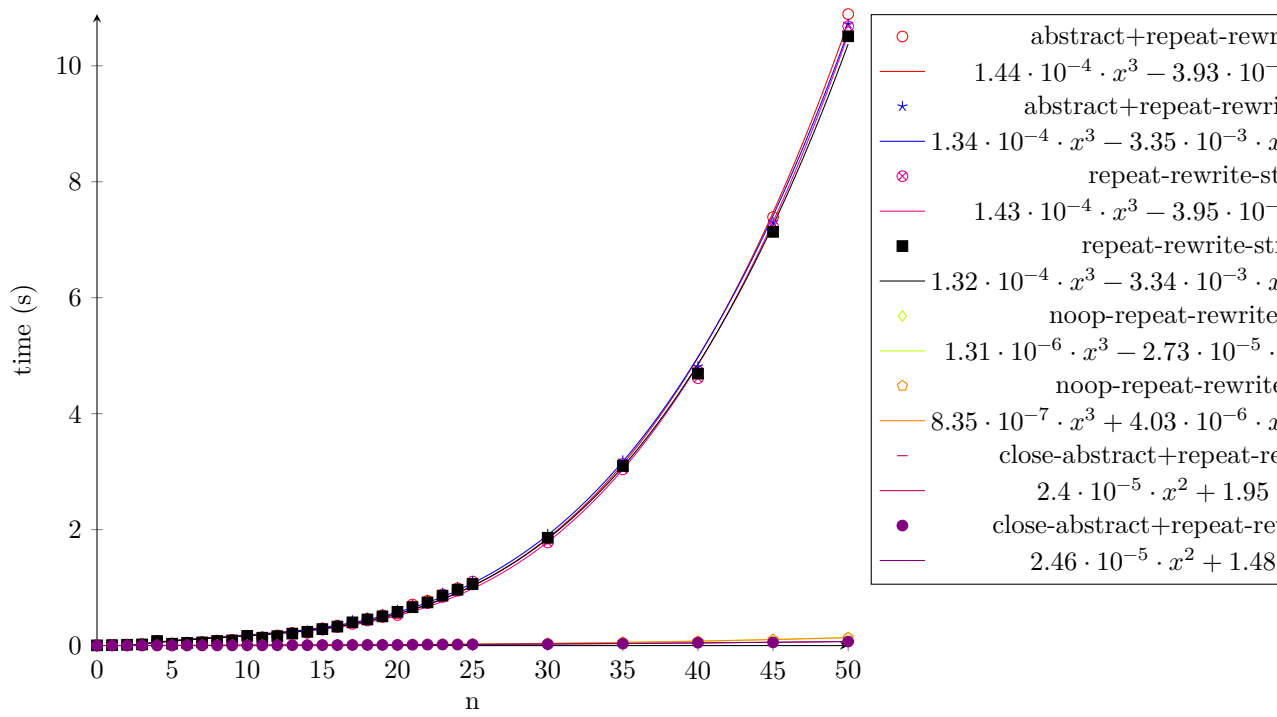Figure 4: timing-repeat-setoid-rewrite-under-binders-noop

4

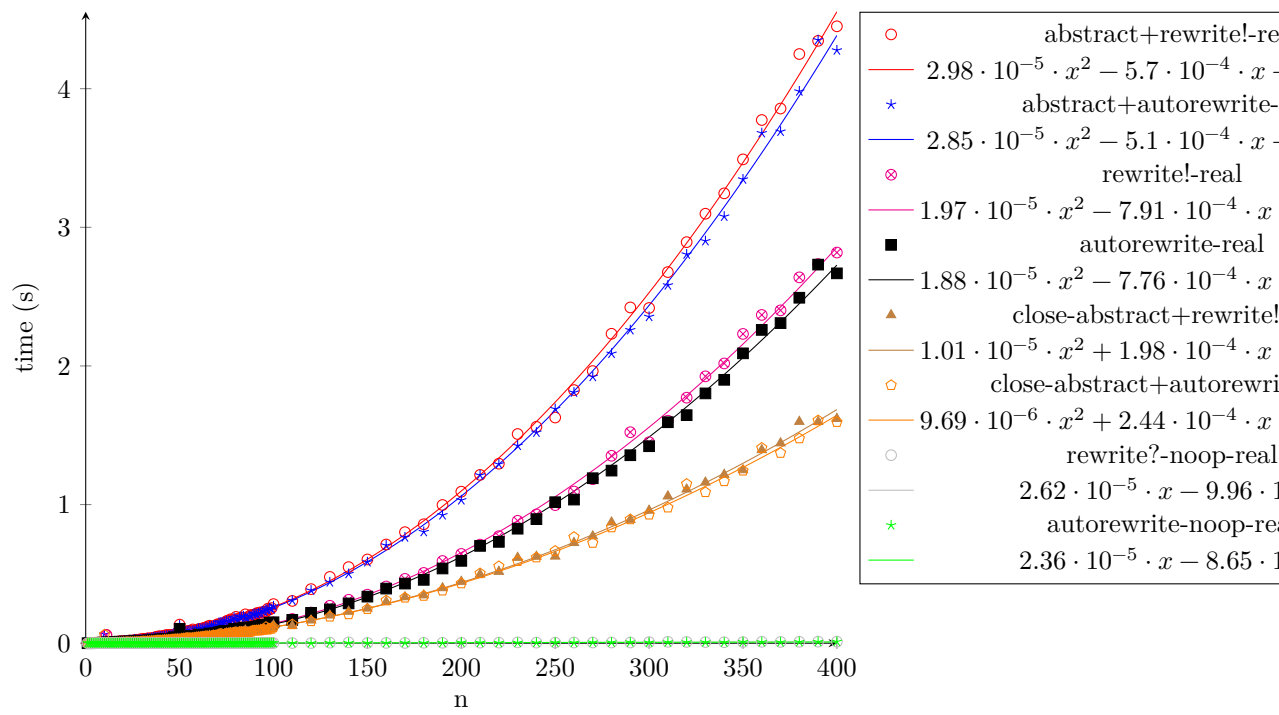Figure 5: timing-rewrite-strat-under-binders
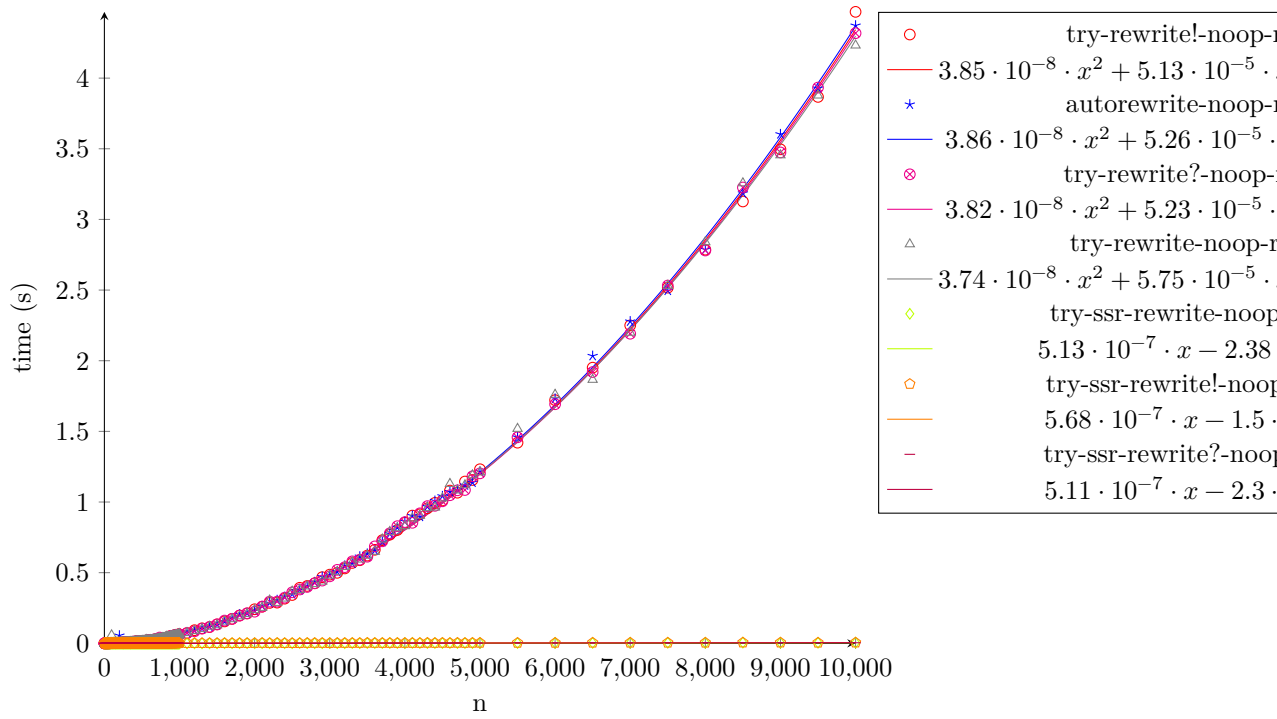
Figure 6: timing-rewrite-repeated-app-autorewrite

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

The plot legend entries read:

- try-rewrite!-noop-
- $3.85 \cdot 10^{-8} \cdot x^2 + 5.13 \cdot 10^{-5} \cdot$
- autorewrite-noop-
- $3.86 \cdot 10^{-8} \cdot x^2 + 5.26 \cdot 10^{-5} \cdot$
- try-rewrite?-noop-
- $3.82 \cdot 10^{-8} \cdot x^2 + 5.23 \cdot 10^{-5} \cdot$
- try-rewrite-noop-
- $3.74 \cdot 10^{-8} \cdot x^2 + 5.75 \cdot 10^{-5} \cdot$
- try-ssr-rewrite-noop
- $5.13 \cdot 10^{-7} \cdot x - 2.38$
- try-ssr-rewrite!-noop
- $5.68 \cdot 10^{-7} \cdot x - 1.5 \cdot$
- try-ssr-rewrite?-noop
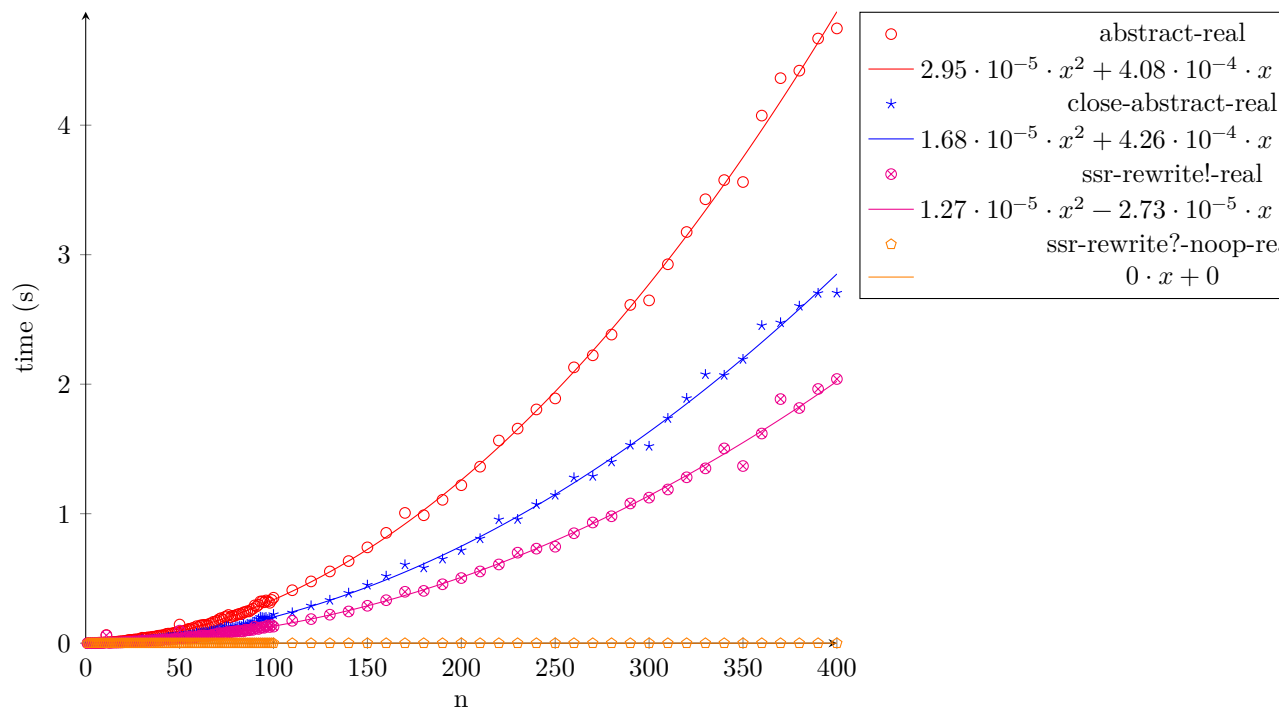- $5.11 \cdot 10^{-7} \cdot x - 2.3 \cdot$

Figure 8: timing-rewrite-repeated-app-ssrrewrite
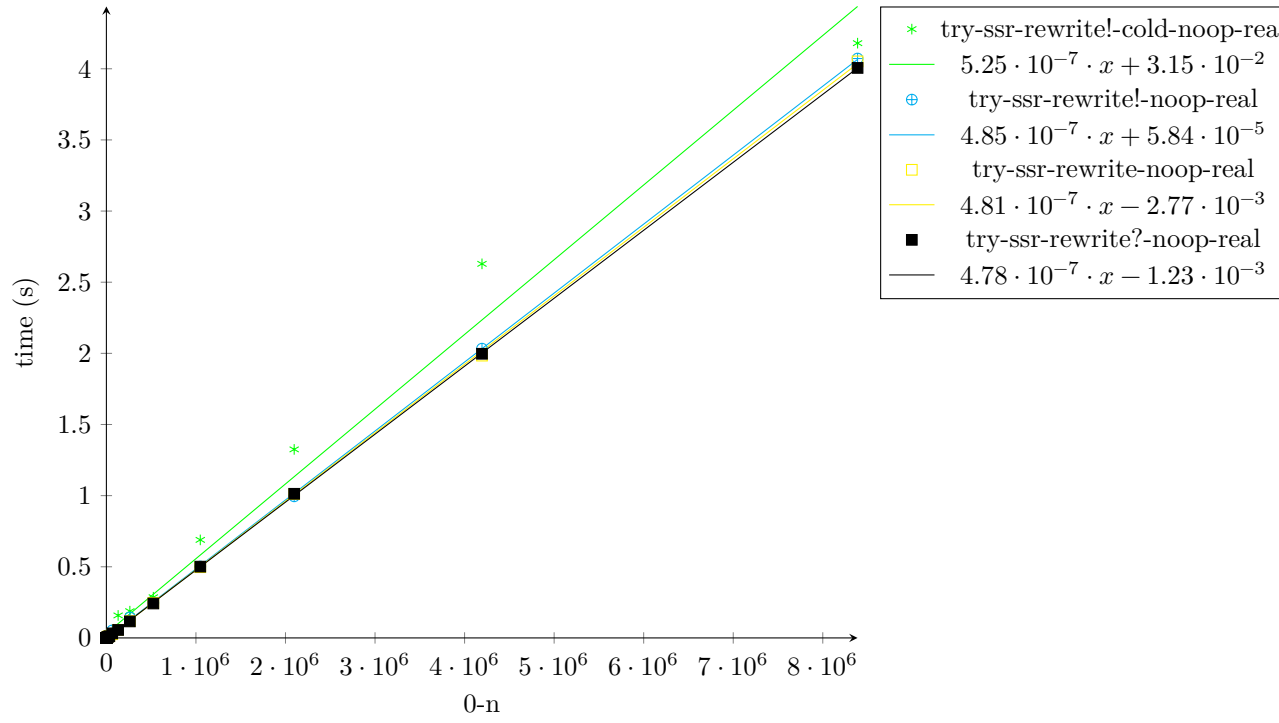
Figure 9: timing-rewrite-repeated-app-ssrrewrite-noop param-1-lgn   1

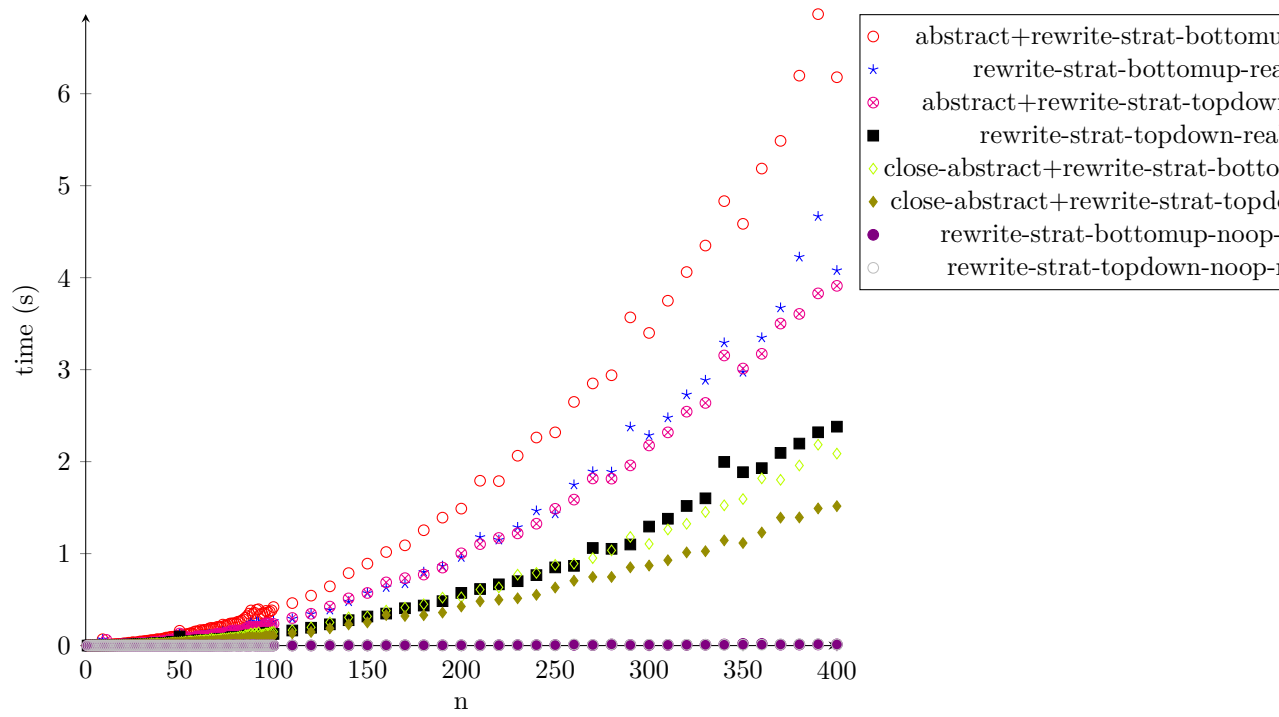Figure 10: timing-rewrite-repeated-app-rewrite-strat

The legend entries for the figure are:
- 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...
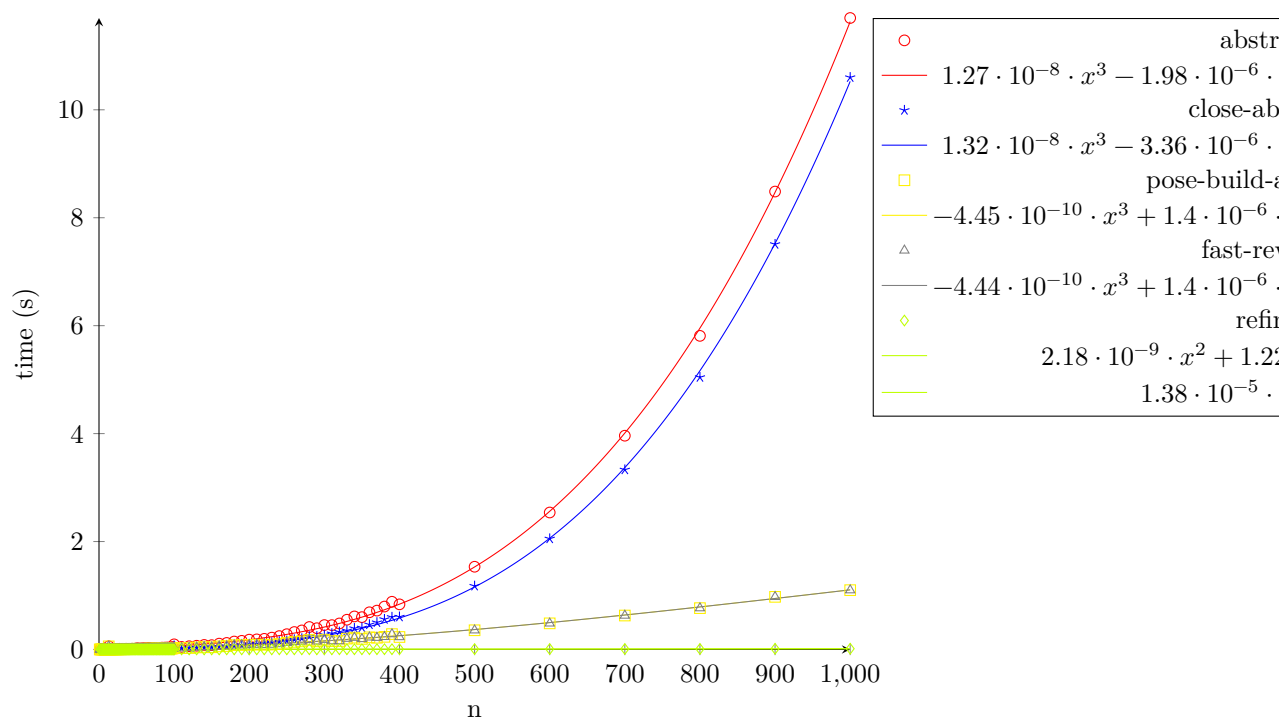- rewrite-strat-bottomup-noop-...
- rewrite-strat-topdown-noop-...

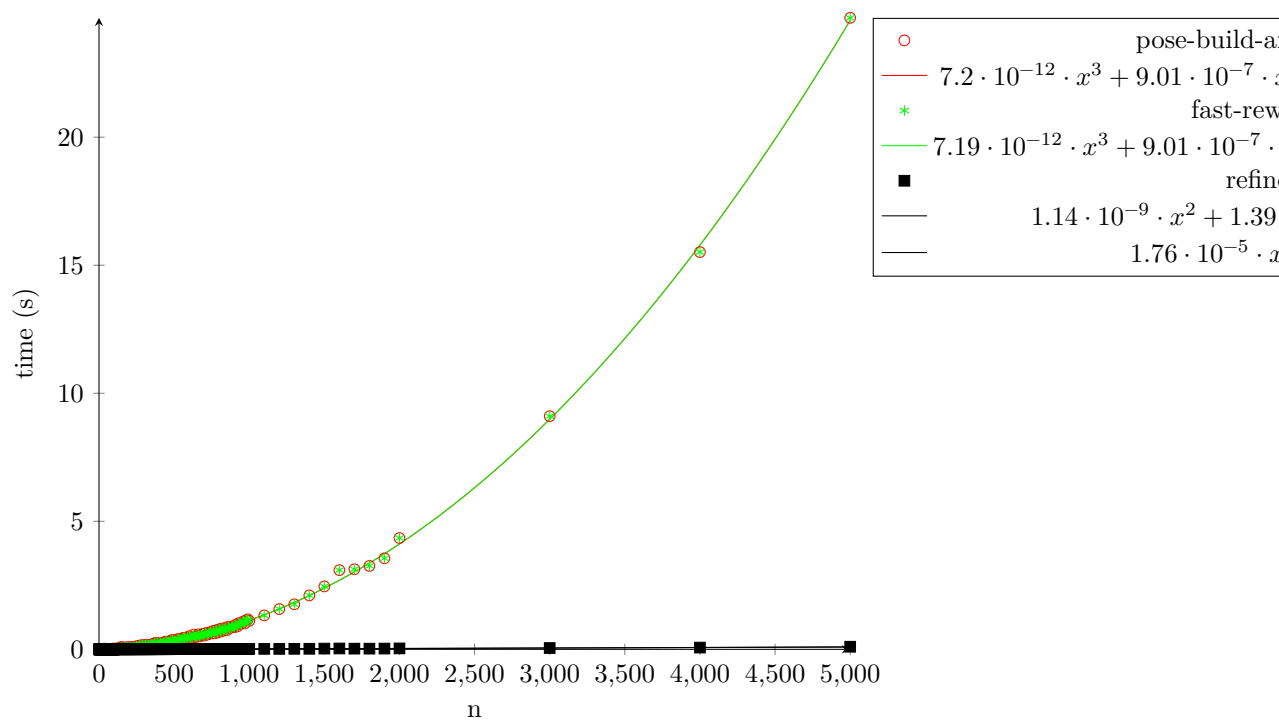Figure 11: timing-rewrite-repeated-app-fast-rewrite

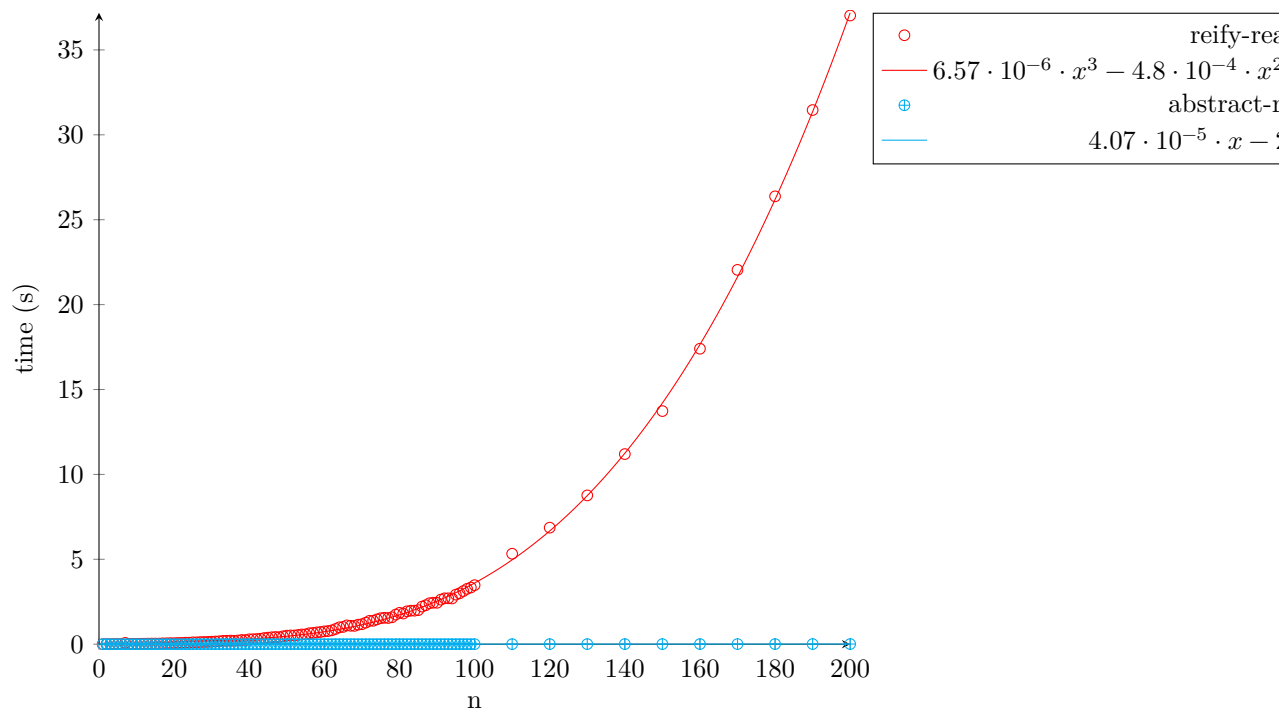Figure 12: timing-rewrite-repeated-app-fast-rewrite-no-abstract

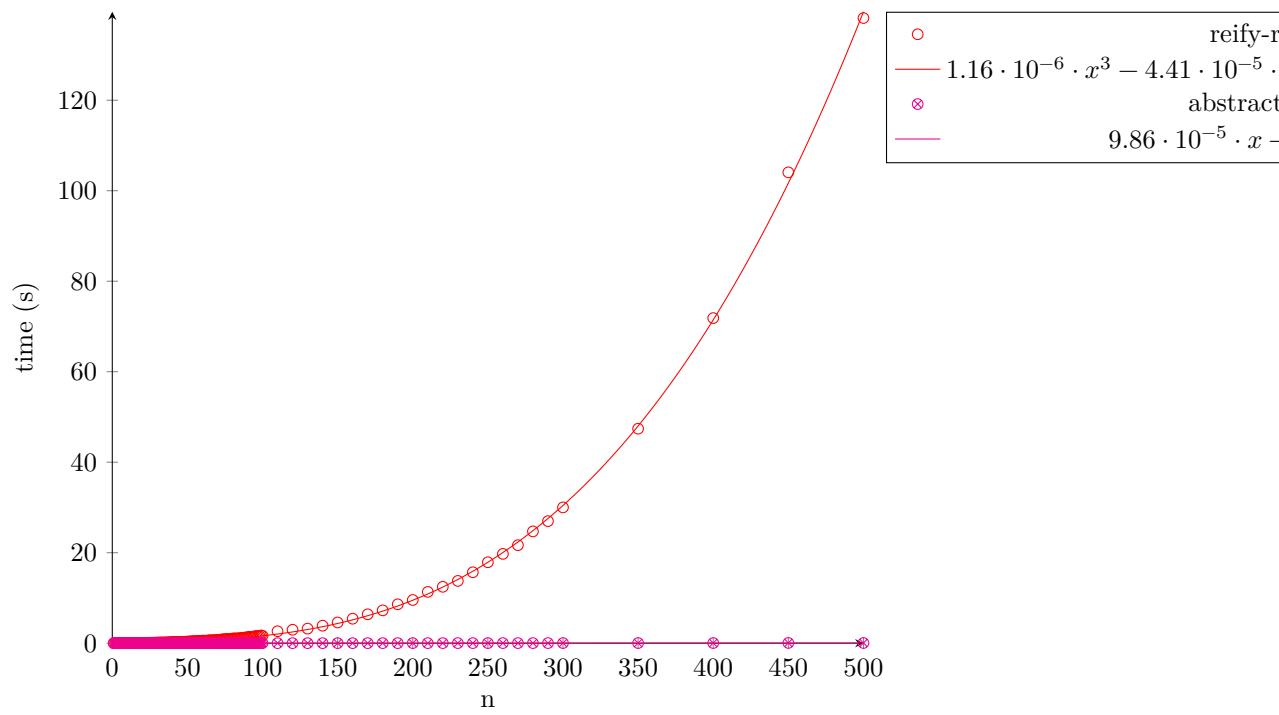Figure 13: timing-typeclass-reification-let-in-HOAS

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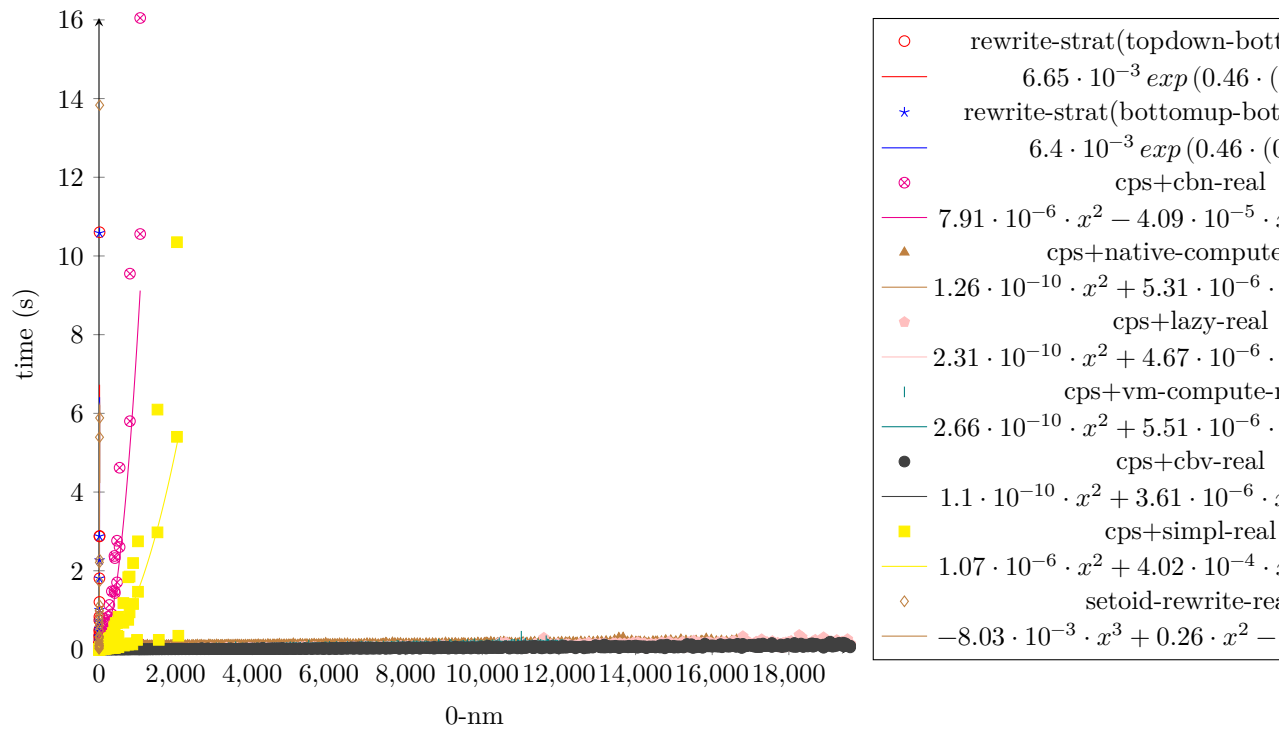Figure 14: timing-typeclass-reification-let-in-PHOAS

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

Legend (partially visible):

- ○ rewrite-strat(topdown-bott...
- — $6.65 \cdot 10^{-3} \, exp\,(0.46 \cdot ($
- ⋆ rewrite-strat(bottomup-bot...
- — $6.4 \cdot 10^{-3} \, exp\,(0.46 \cdot ($
- ⊗ cps+cbn-real
- — $7.91 \cdot 10^{-6} \cdot x^2 - 4.09 \cdot 10^{-5} \cdot$
- ▲ cps+native-compute
- — $1.26 \cdot 10^{-10} \cdot x^2 + 5.31 \cdot 10^{-6} \cdot$
- ⬟ cps+lazy-real
- — $2.31 \cdot 10^{-10} \cdot x^2 + 4.67 \cdot 10^{-6} \cdot$
- | cps+vm-compute-
- — $2.66 \cdot 10^{-10} \cdot x^2 + 5.51 \cdot 10^{-6} \cdot$
- ● cps+cbv-real
- — $1.1 \cdot 10^{-10} \cdot x^2 + 3.61 \cdot 10^{-6} \cdot$
- ■ cps+simpl-real
- — $1.07 \cdot 10^{-6} \cdot x^2 + 4.02 \cdot 10^{-4} \cdot$
- ◇ setoid-rewrite-re...
- — $-8.03 \cdot 10^{-3} \cdot x^3 + 0.26 \cdot x^2 -$
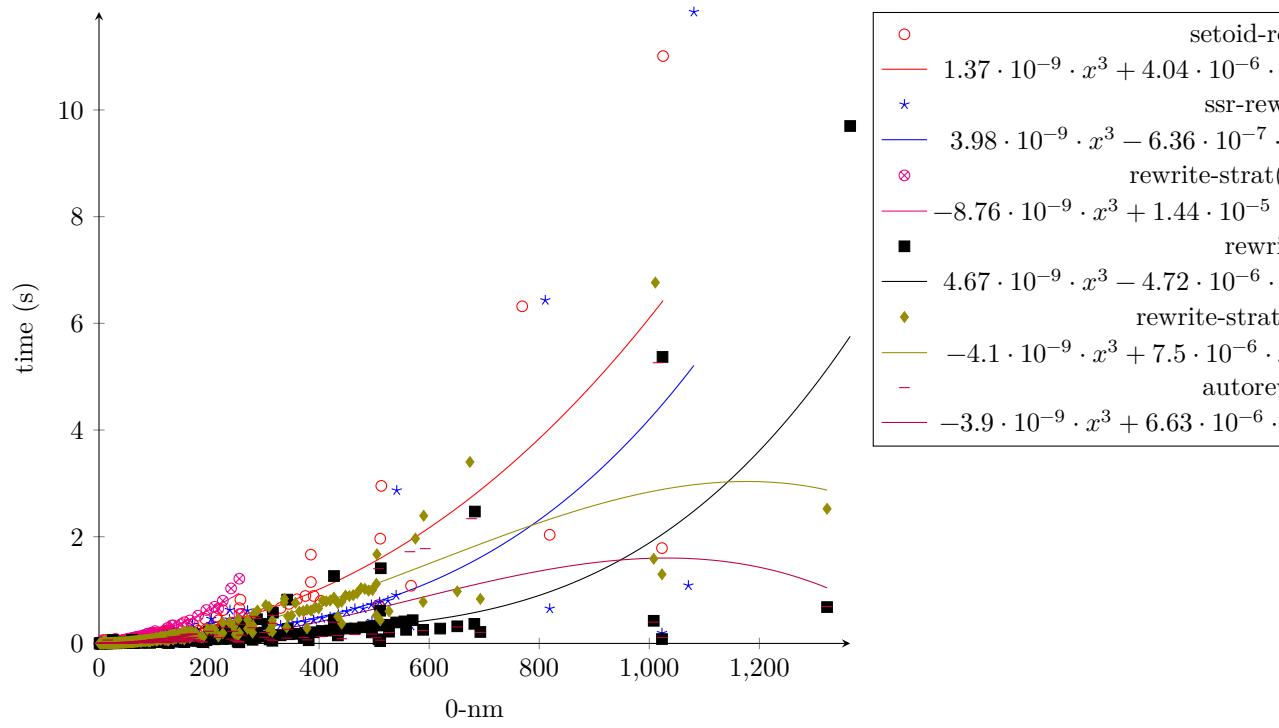
15

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
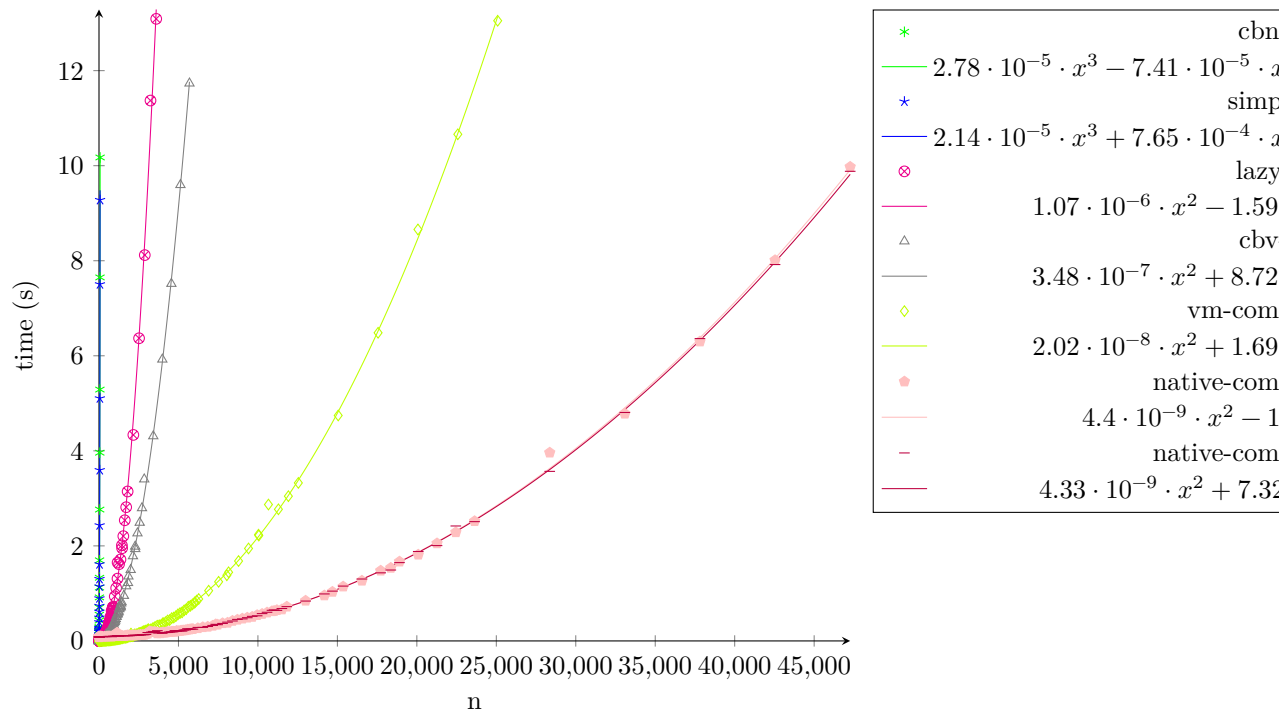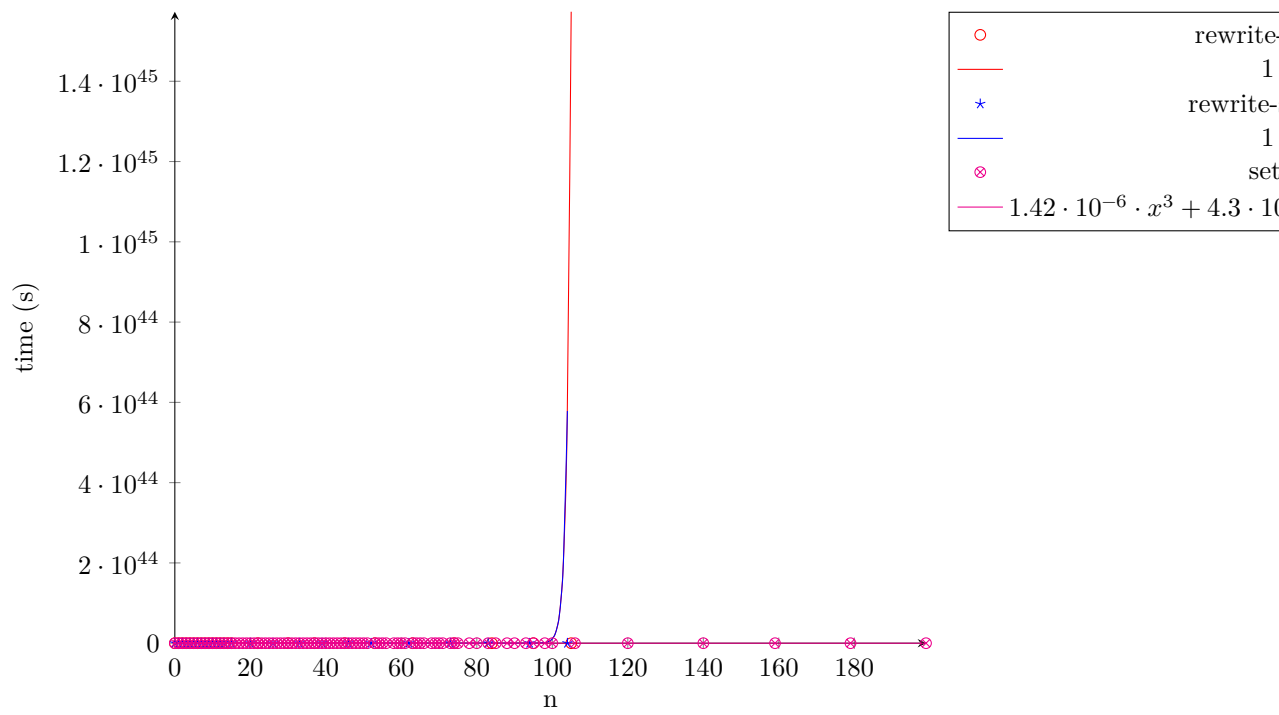
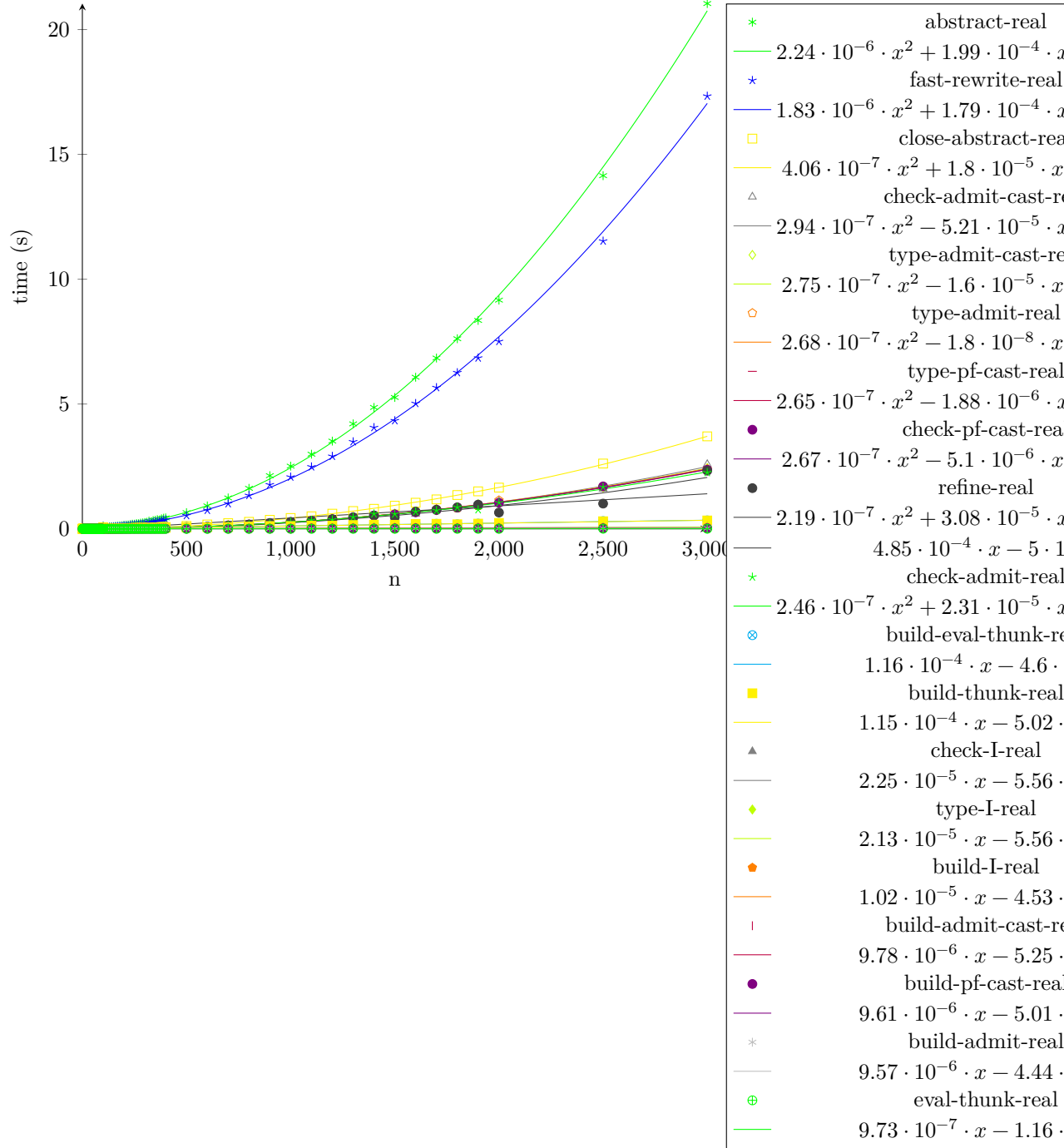Figure 17: timing-sieve-of-eratosthenes

Figure 18: timing-rewrite-under-lets-plus-0

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