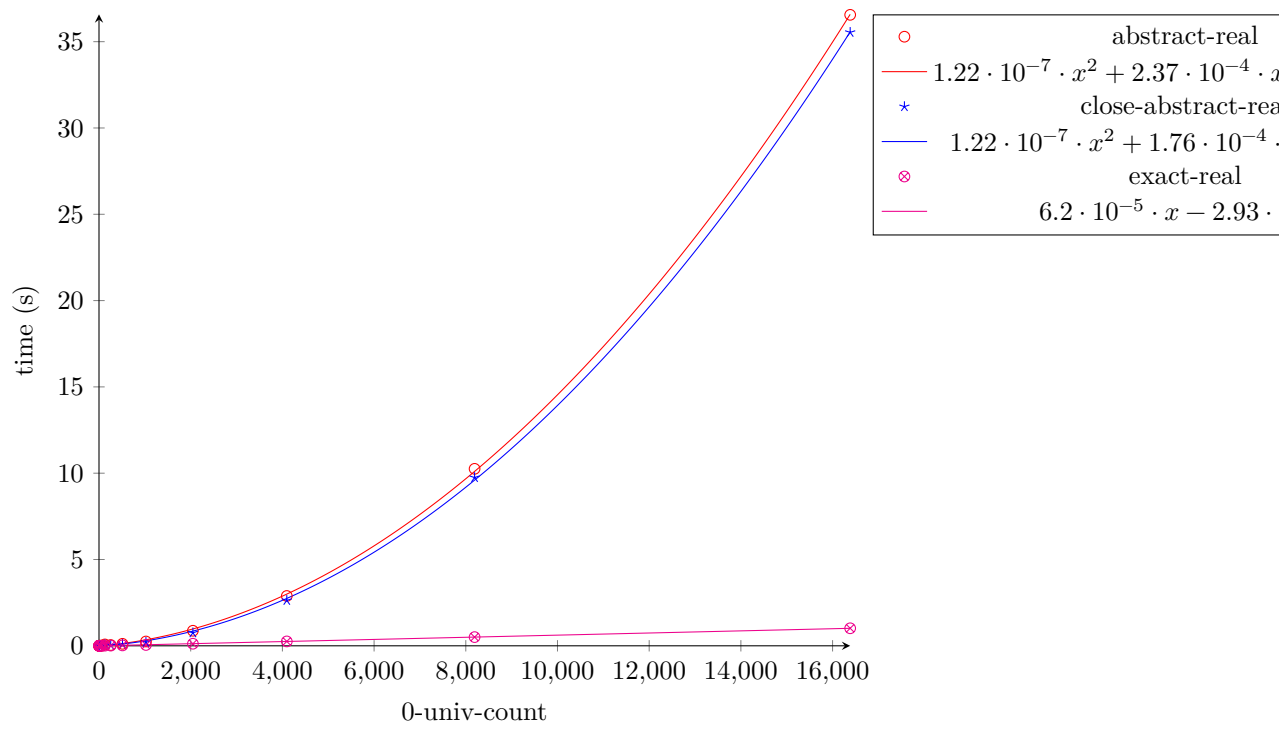Figure 1: timing-pattern

1

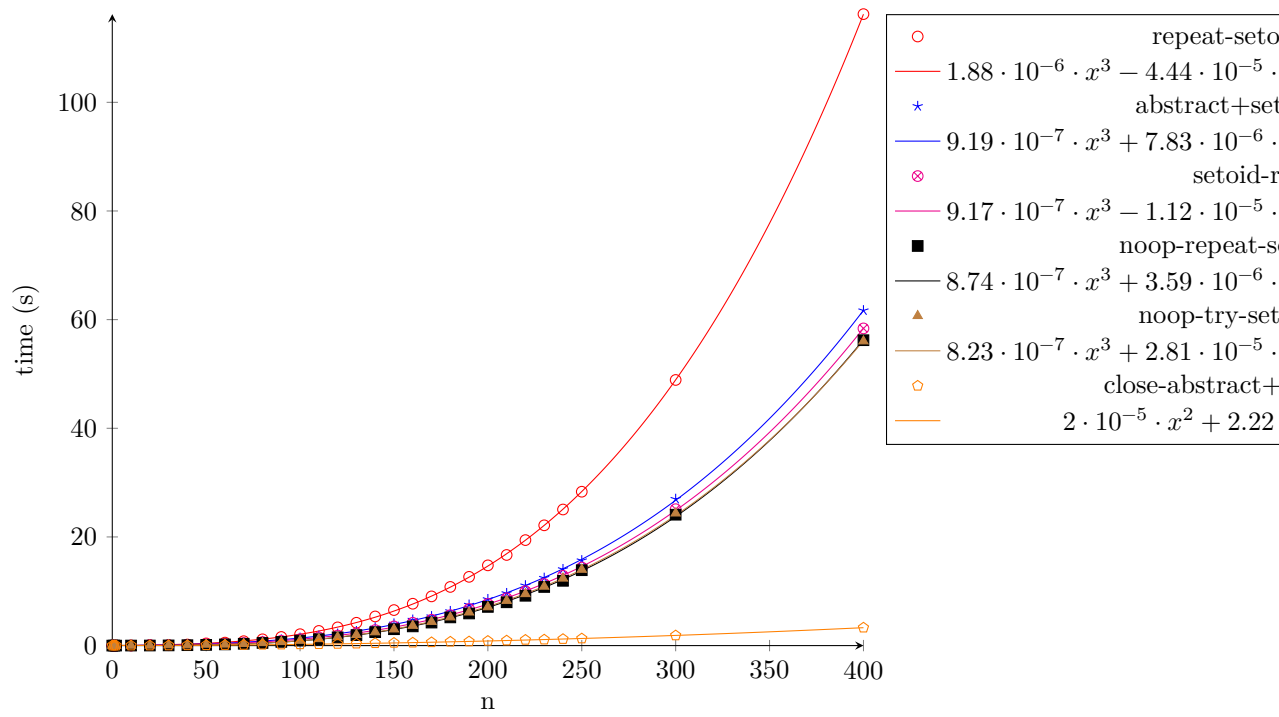Figure 2: timing-n-polymorphic-universes param-1-n 0

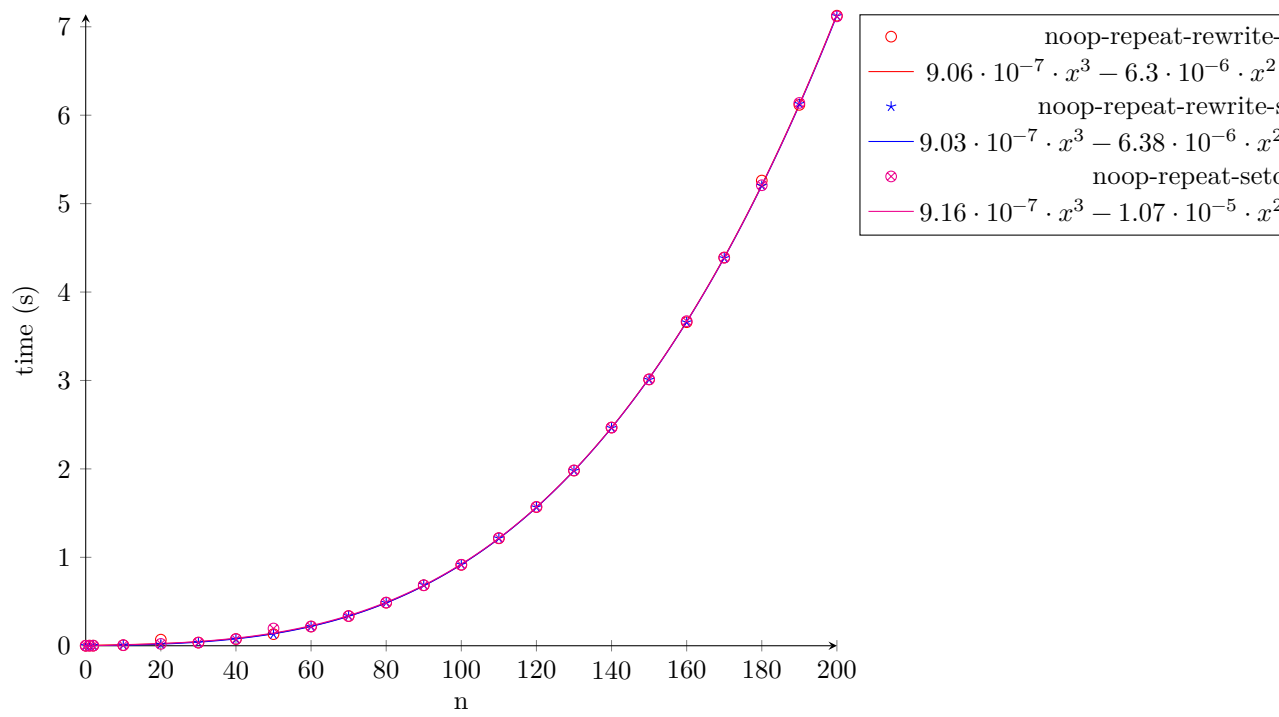Figure 3: timing-repeat-setoid-rewrite-under-binders

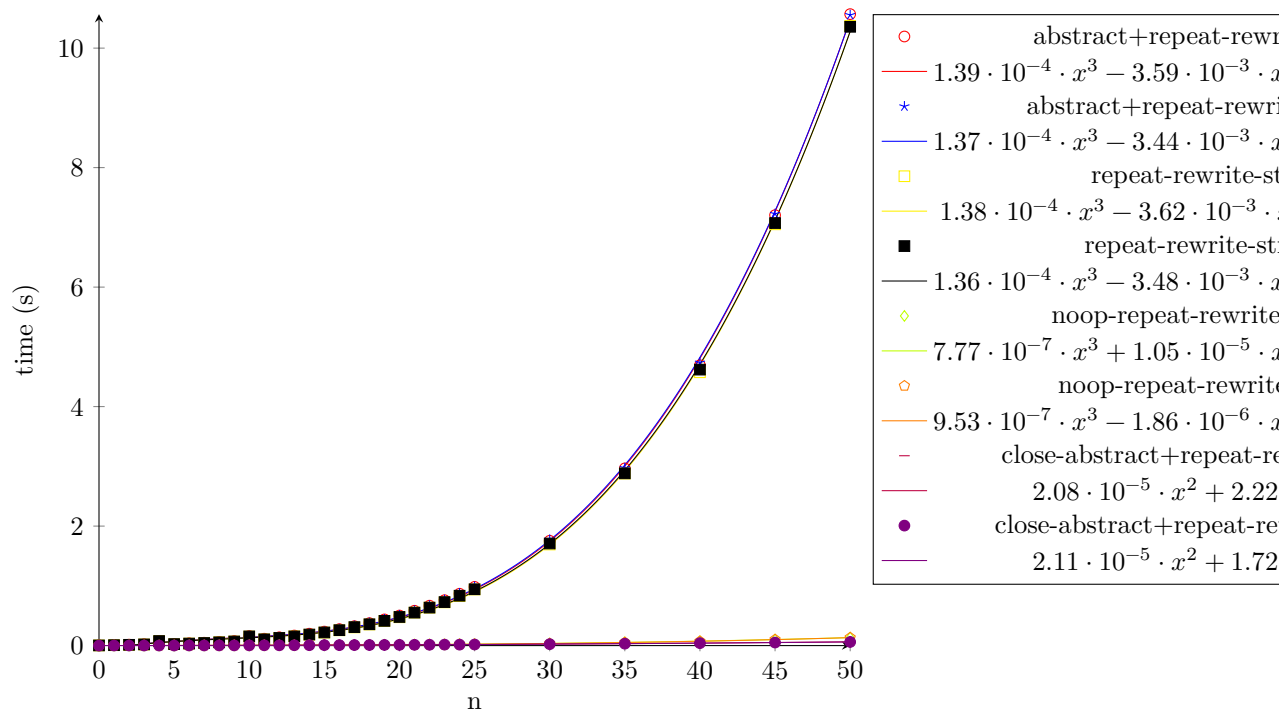Figure 4: timing-repeat-setoid-rewrite-under-binders-noop

4

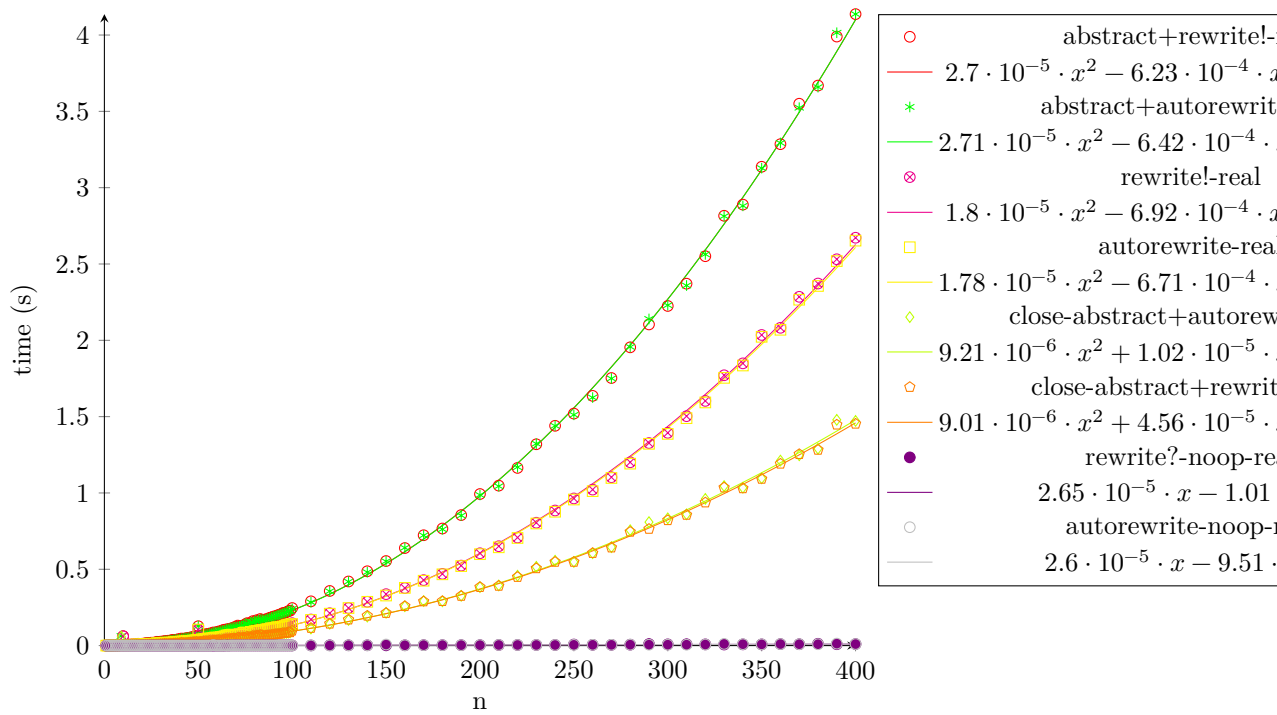Figure 5: timing-rewrite-strat-under-binders
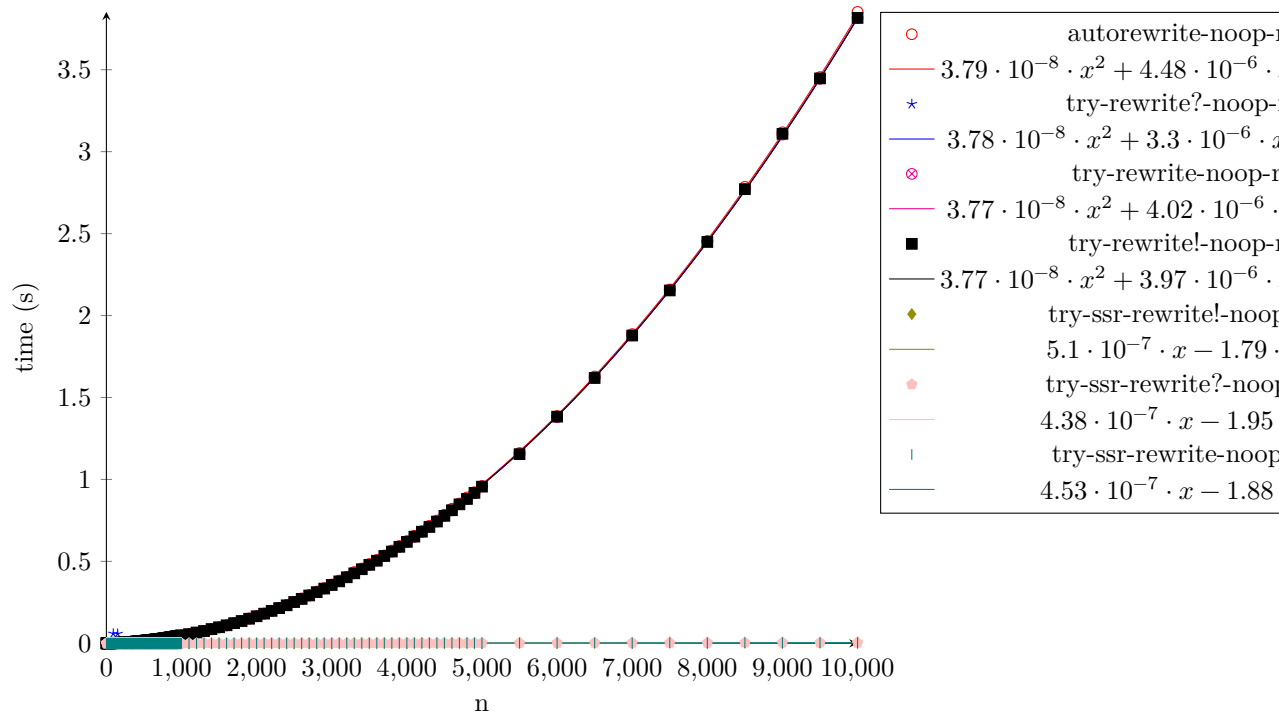
Figure 6: timing-rewrite-repeated-app-autorewrite

6

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

Legend:

- ○ autorewrite-noop-r
- — $3.79 \cdot 10^{-8} \cdot x^2 + 4.48 \cdot 10^{-6} \cdot x$
- ★ try-rewrite?-noop-
- — $3.78 \cdot 10^{-8} \cdot x^2 + 3.3 \cdot 10^{-6} \cdot x$
- ⊗ try-rewrite-noop-r
- — $3.77 \cdot 10^{-8} \cdot x^2 + 4.02 \cdot 10^{-6}$
- ■ try-rewrite!-noop-r
- — $3.77 \cdot 10^{-8} \cdot x^2 + 3.97 \cdot 10^{-6}$
- ◆ try-ssr-rewrite!-noop
- — $5.1 \cdot 10^{-7} \cdot x - 1.79$
- ⬠ try-ssr-rewrite?-noop
- — $4.38 \cdot 10^{-7} \cdot x - 1.95$
- | try-ssr-rewrite-noop
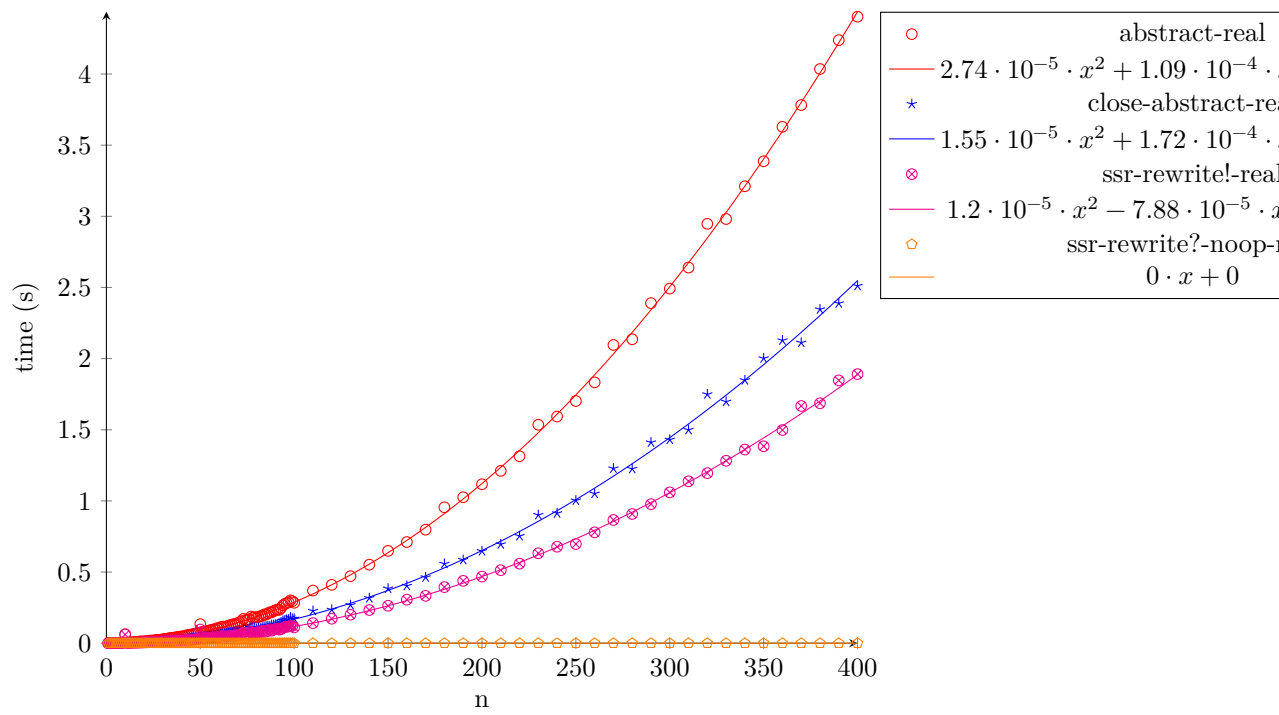- — $4.53 \cdot 10^{-7} \cdot x - 1.88$

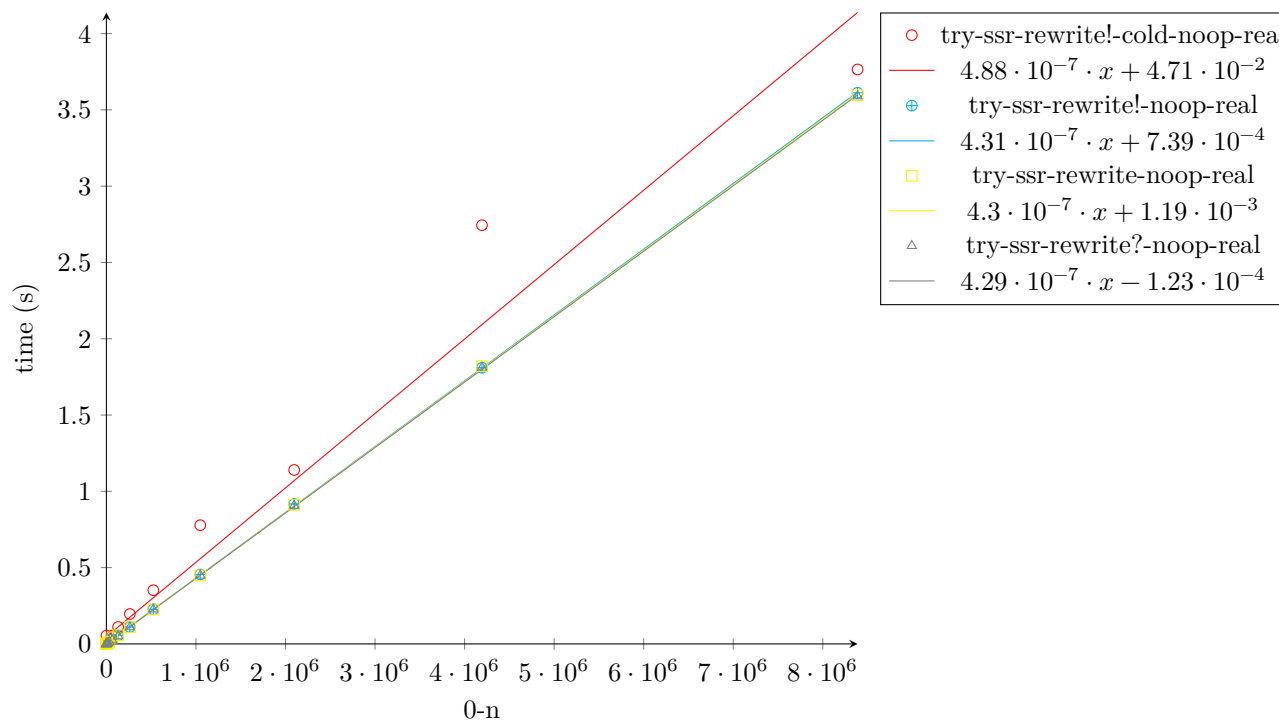Figure 8: timing-rewrite-repeated-app-ssrrewrite

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

Figure 10: timing-rewrite-repeated-app-rewrite-strat
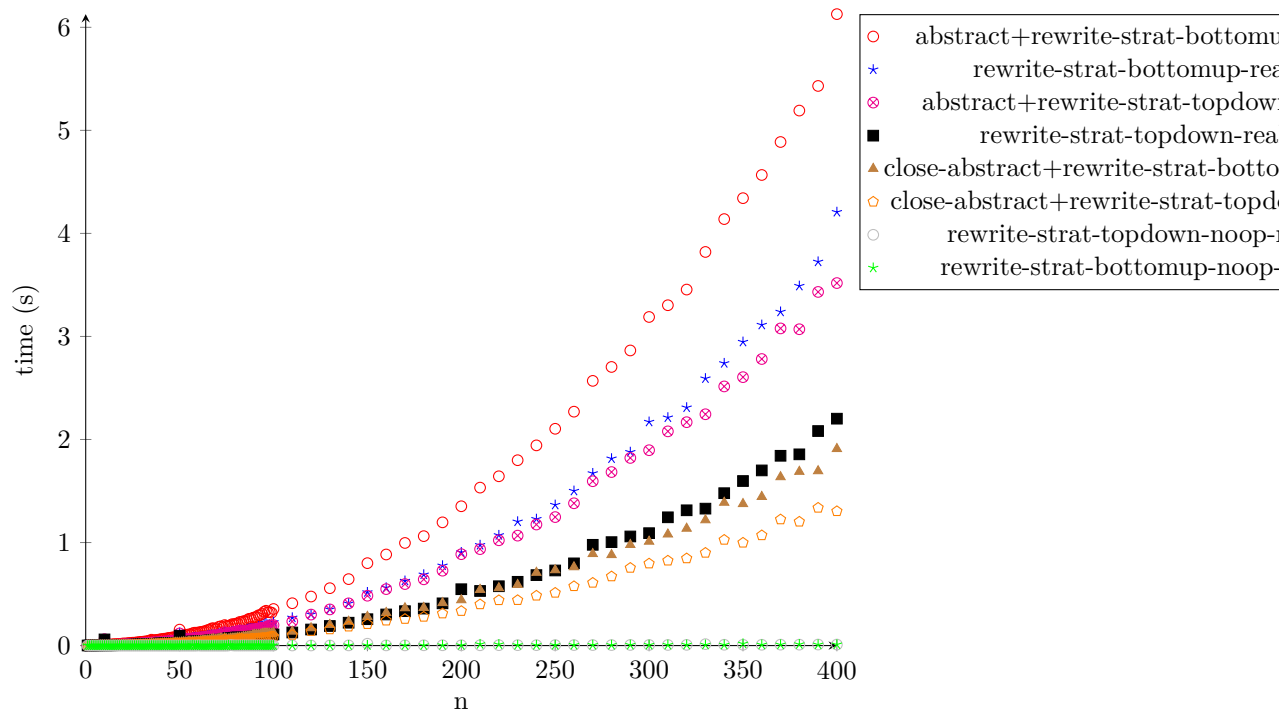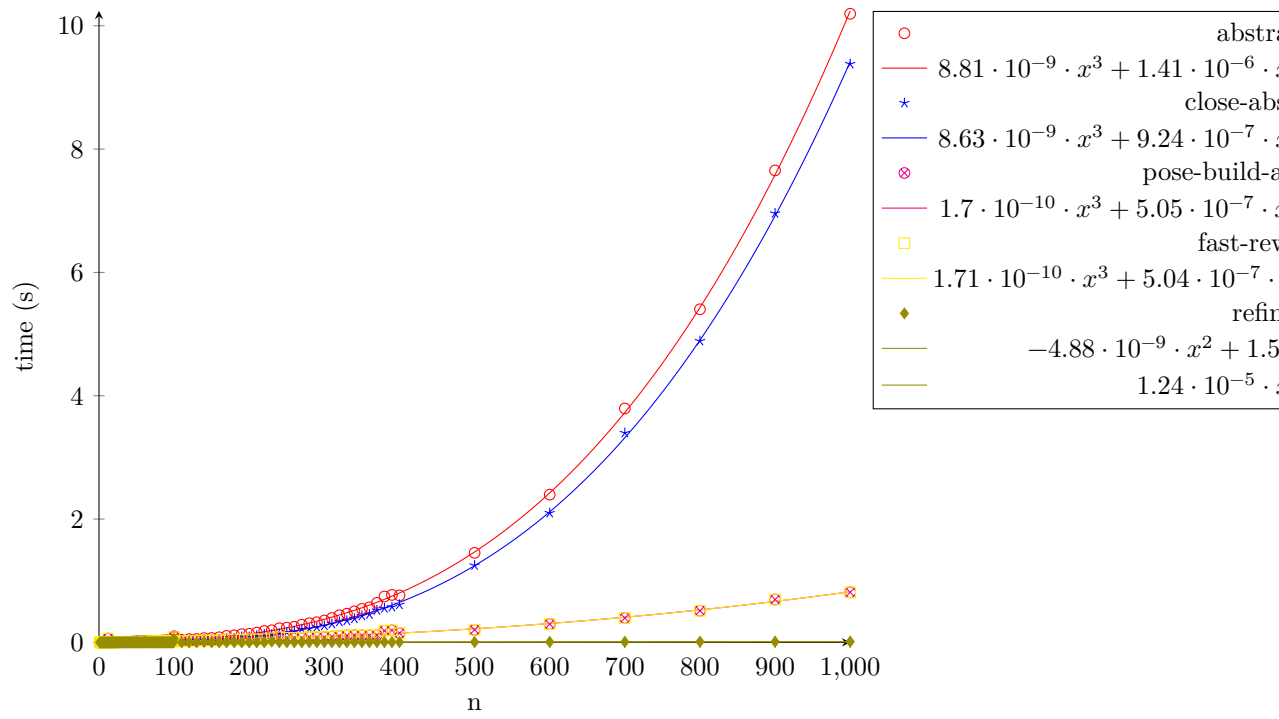
Figure 11: timing-rewrite-repeated-app-fast-rewrite

Legend (partially visible):

- abstra... : $8.81 \cdot 10^{-9} \cdot x^3 + 1.41 \cdot 10^{-6} \cdot ...$
- close-abs... : $8.63 \cdot 10^{-9} \cdot x^3 + 9.24 \cdot 10^{-7} \cdot ...$
- pose-build-a... : $1.7 \cdot 10^{-10} \cdot x^3 + 5.05 \cdot 10^{-7} \cdot ...$
- fast-rev... : $1.71 \cdot 10^{-10} \cdot x^3 + 5.04 \cdot 10^{-7} \cdot ...$
- refin... : $-4.88 \cdot 10^{-9} \cdot x^2 + 1.5...$
- $1.24 \cdot 10^{-5} \cdot ...$
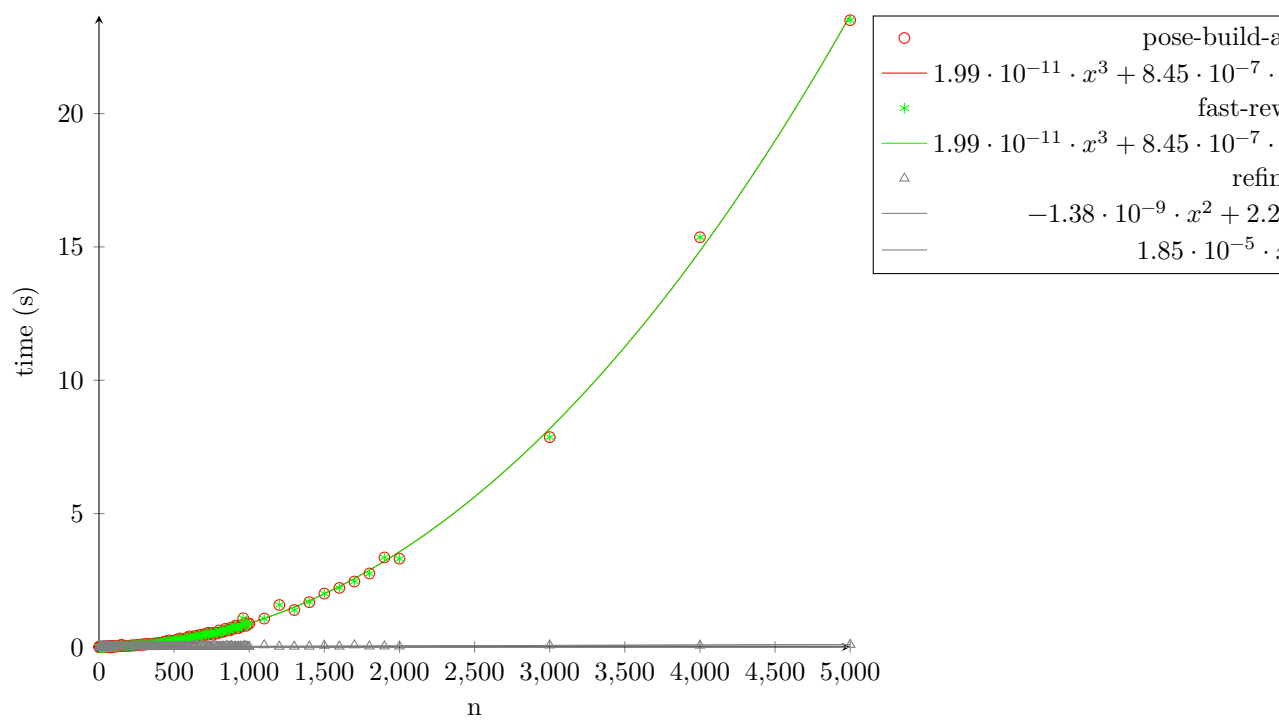
Axis labels: time (s), n

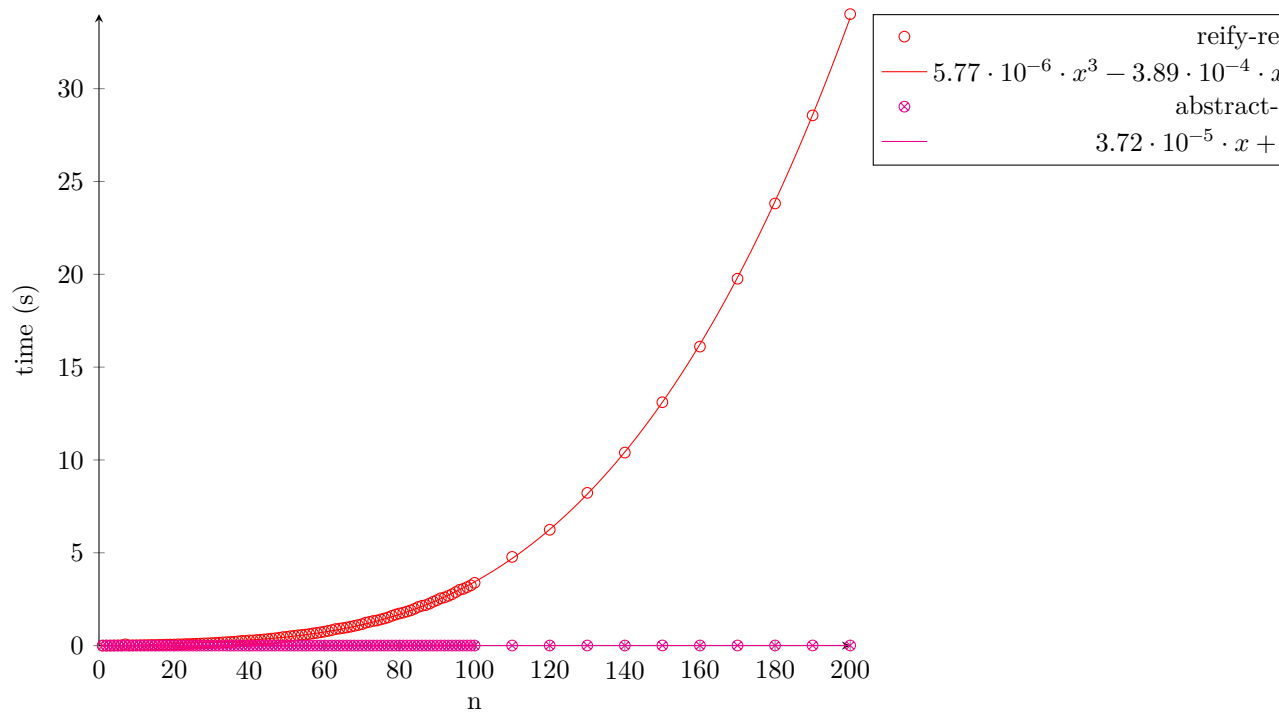Figure 12: timing-rewrite-repeated-app-fast-rewrite-no-abstract

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

Figure 14: timing-typeclass-reification-let-in-PHOAS
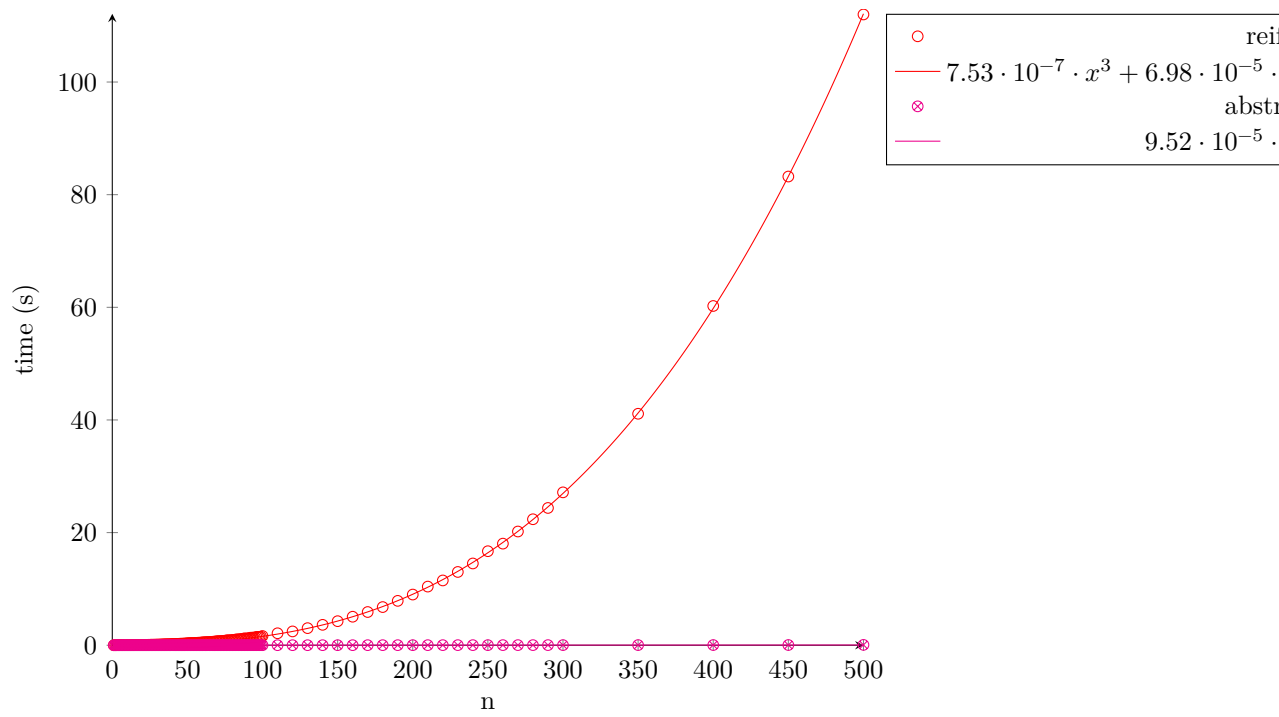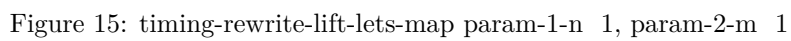
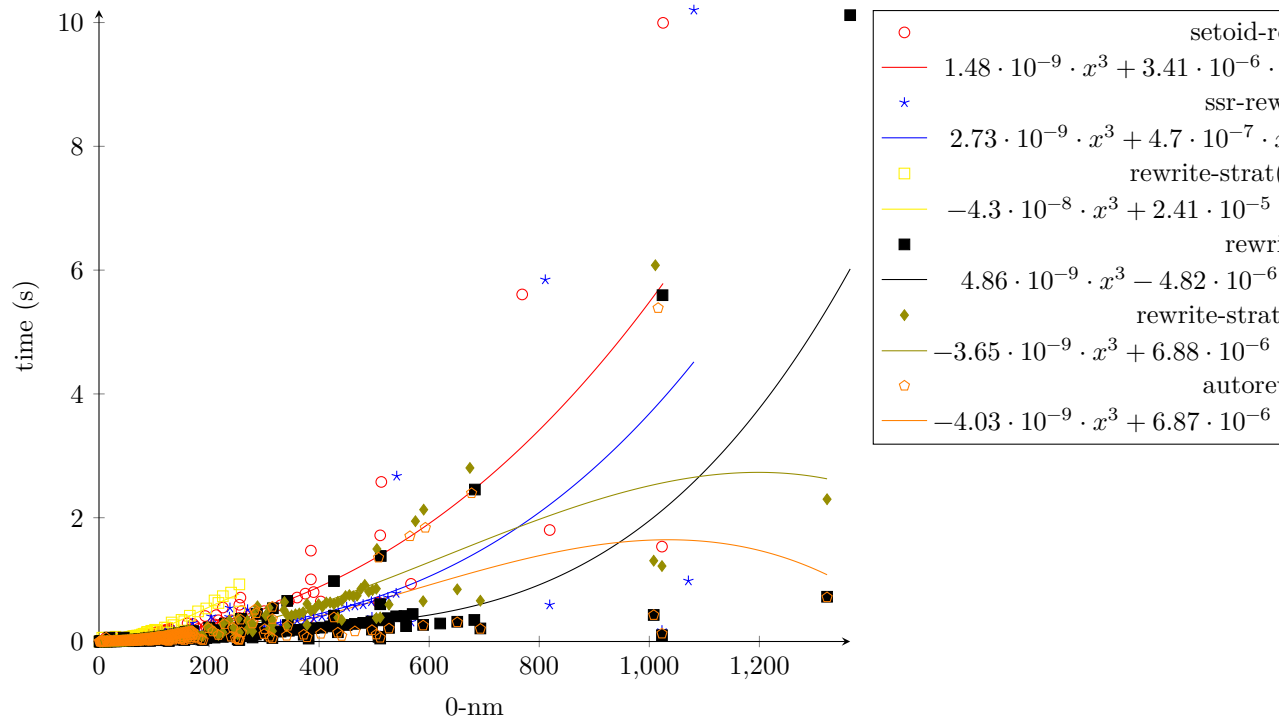Figure 15: timing-rewrite-lift-lets-map param-1-n   1, param-2-m   1

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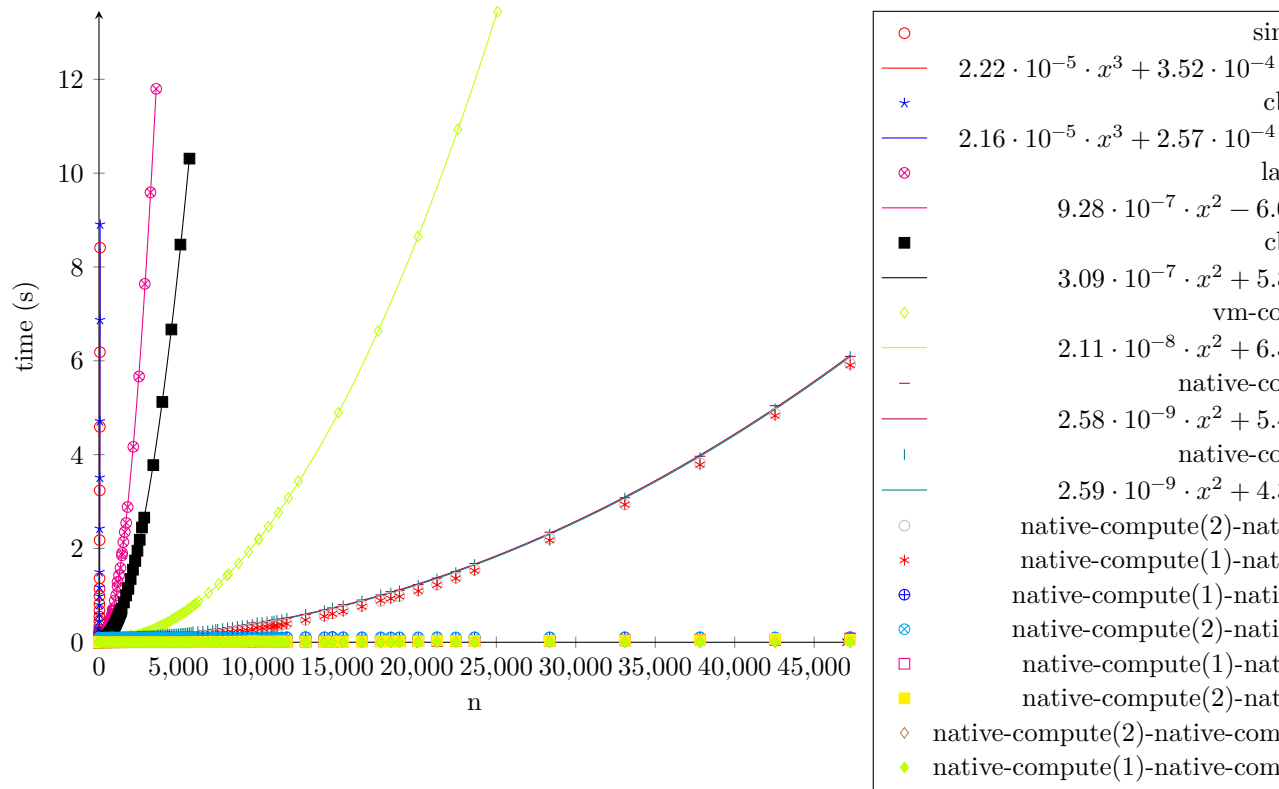
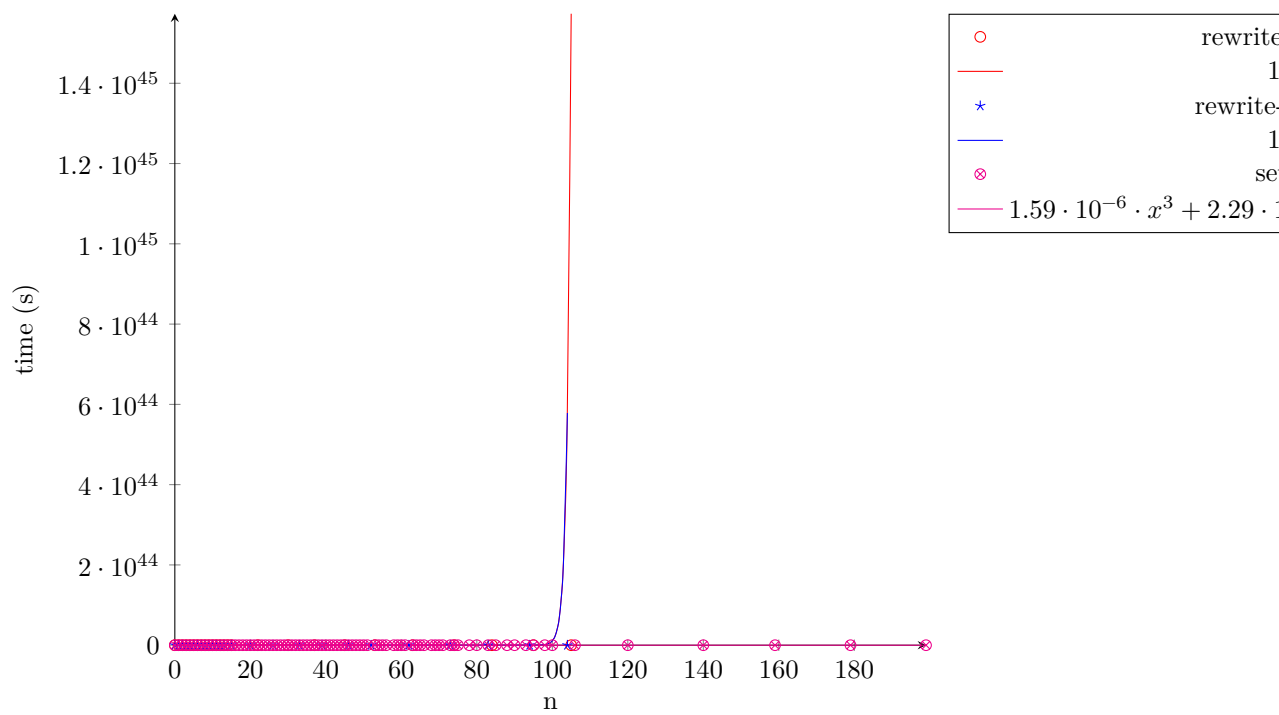Figure 17: timing-sieve-of-eratosthenes
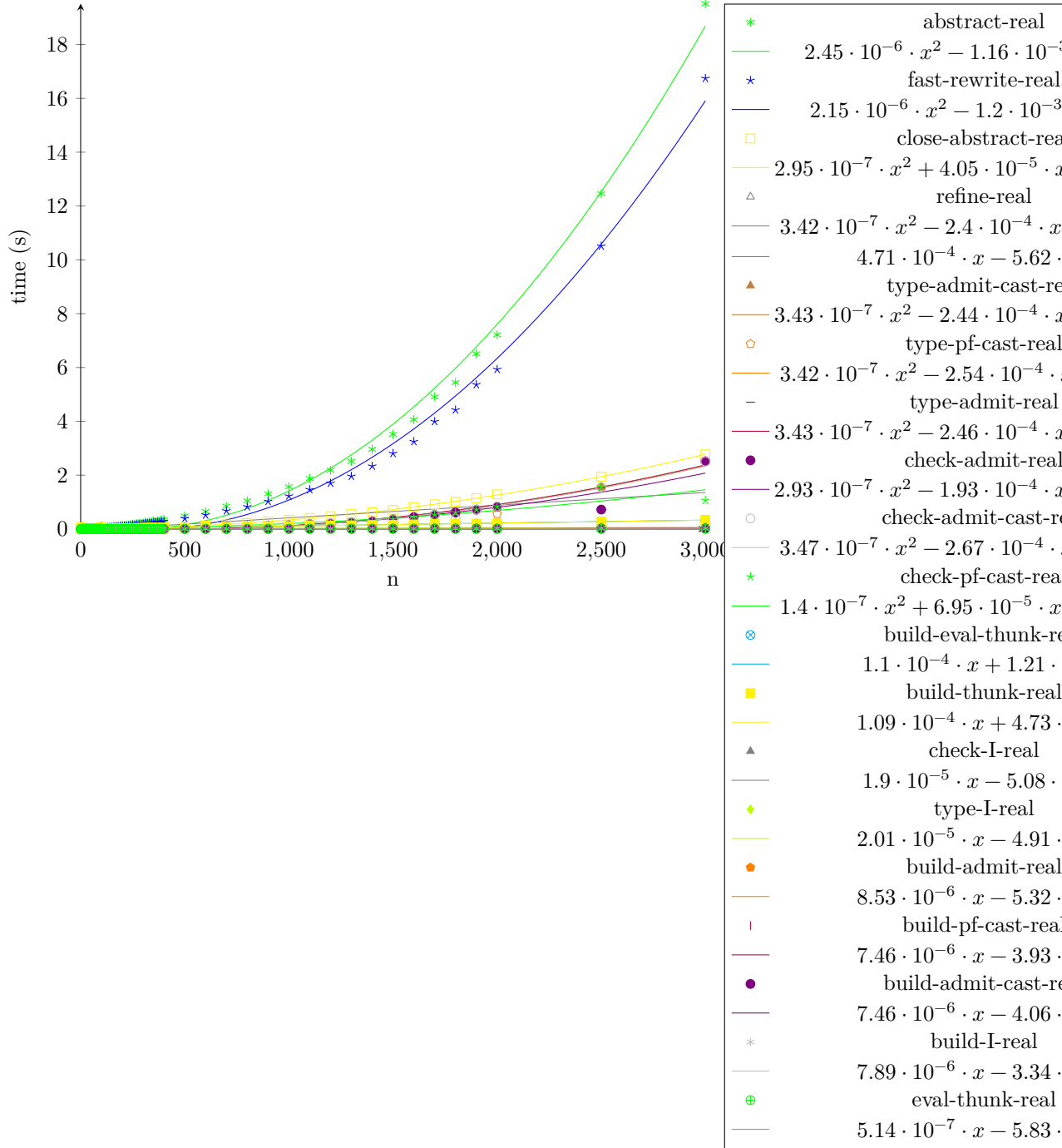
Figure 18: timing-rewrite-under-lets-plus-0

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