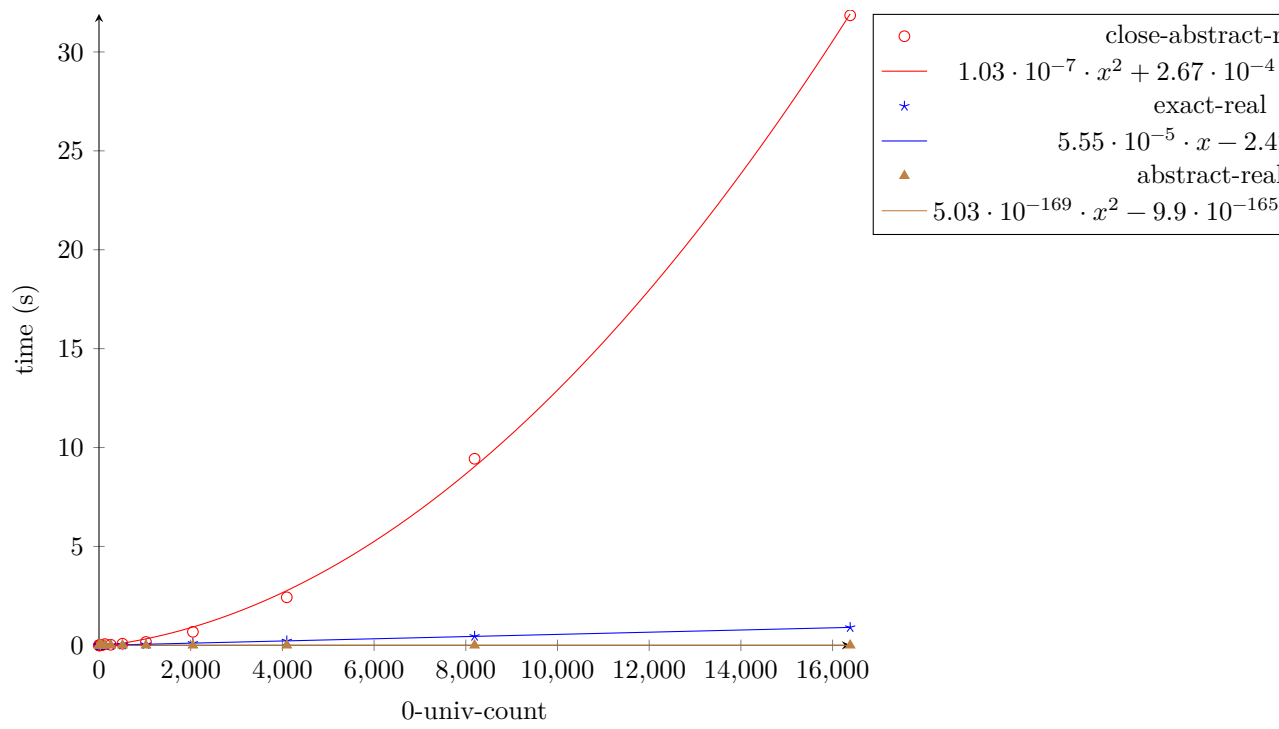Figure 1: timing-pattern

1

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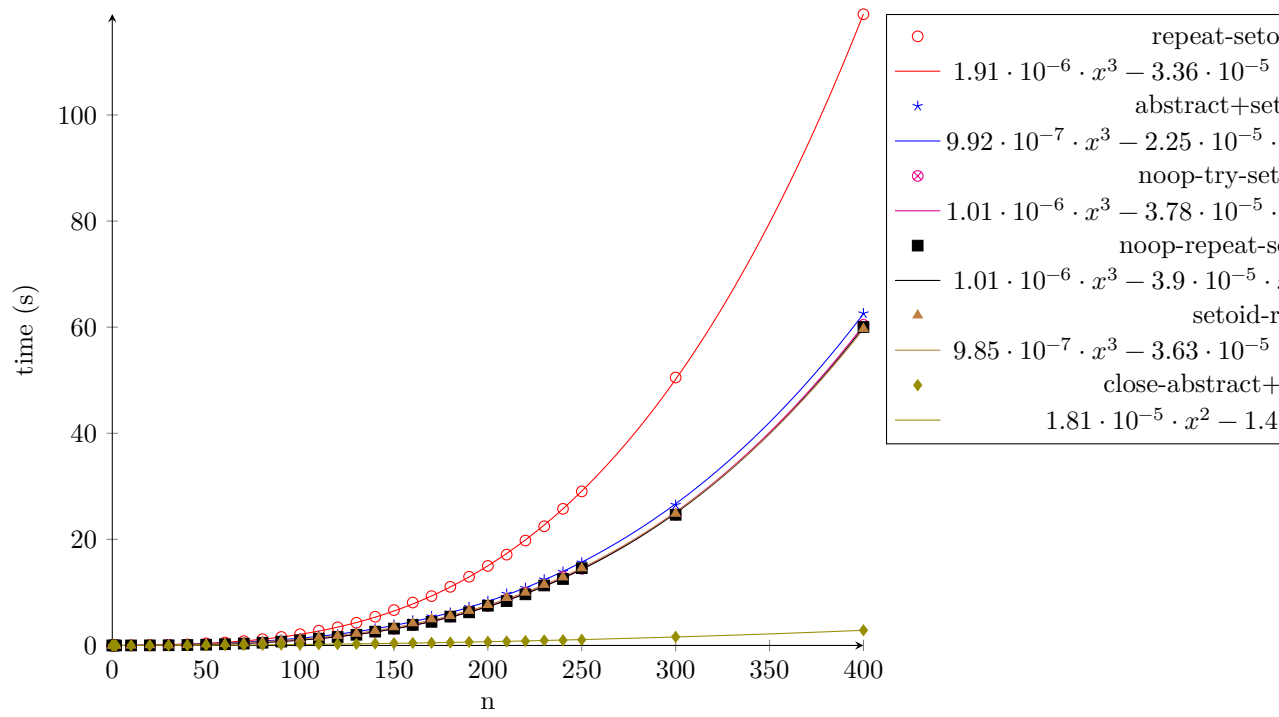
Figure 3: timing-repeat-setoid-rewrite-under-binders
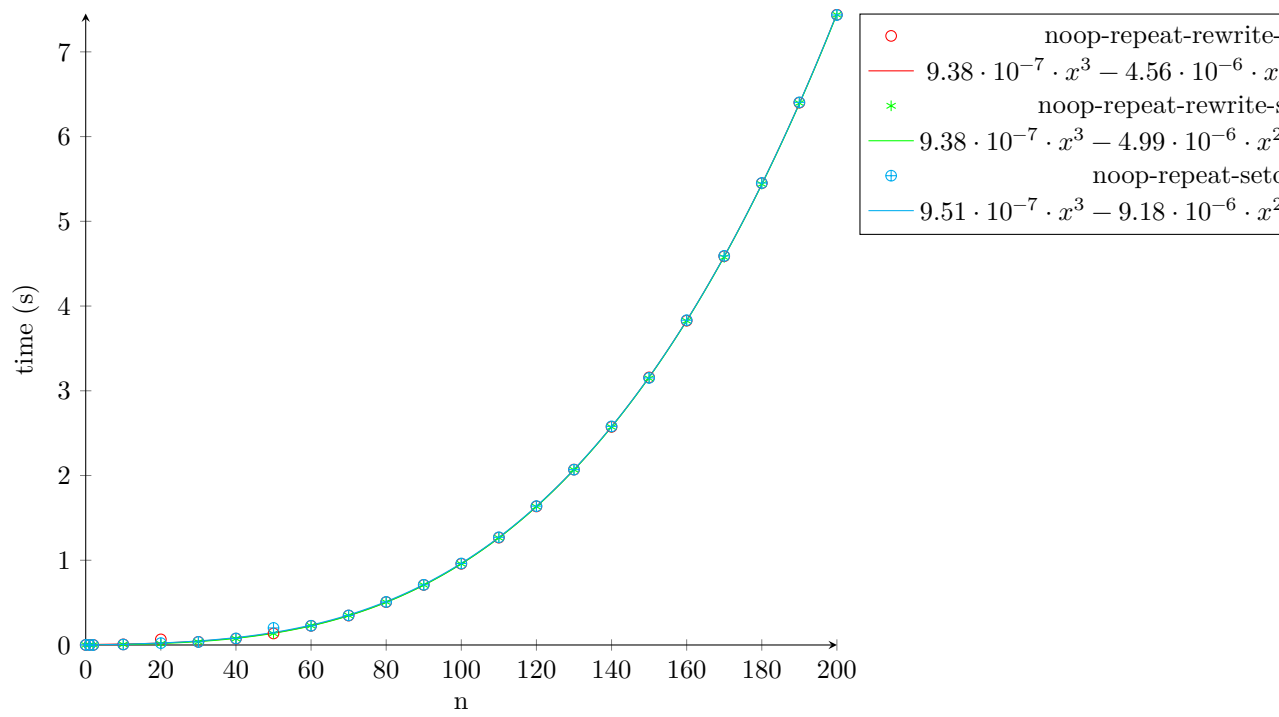
3

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

The legend in the figure reads:

- ○ noop-repeat-rewrite-
- $9.38 \cdot 10^{-7} \cdot x^3 - 4.56 \cdot 10^{-6} \cdot x$
- ✳ noop-repeat-rewrite-s
- $9.38 \cdot 10^{-7} \cdot x^3 - 4.99 \cdot 10^{-6} \cdot x^2$
- ⊕ noop-repeat-seto
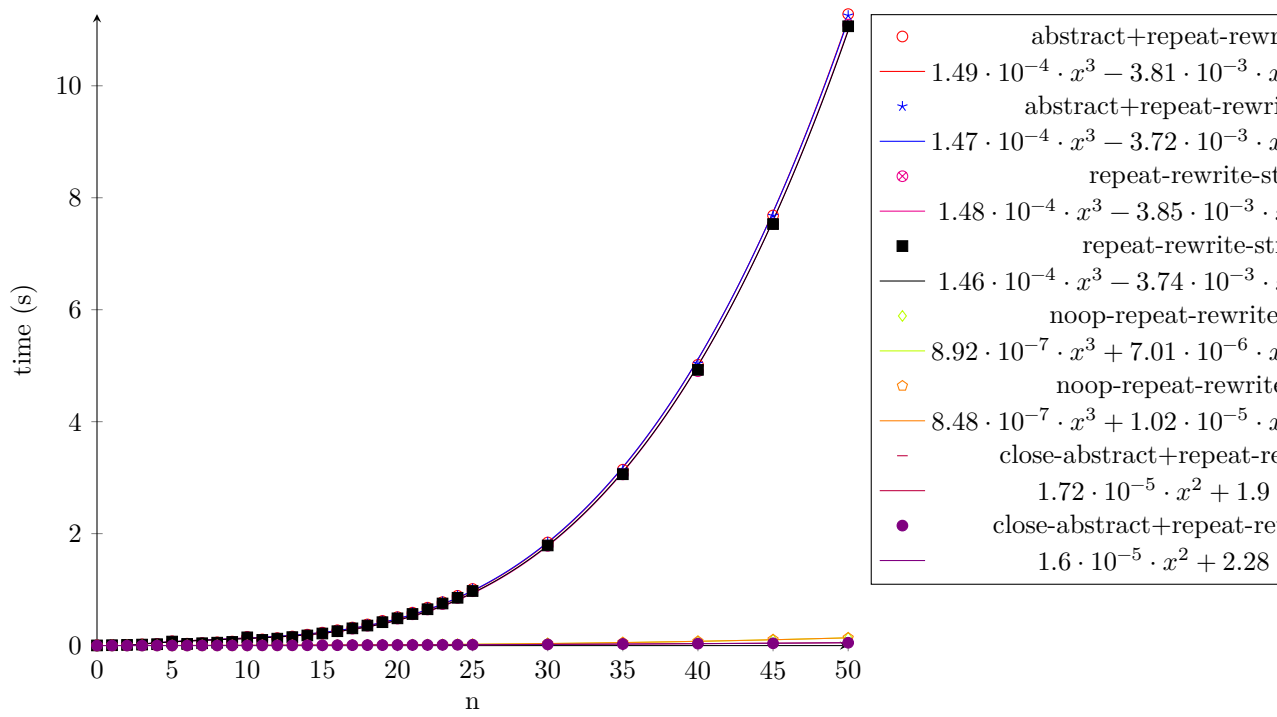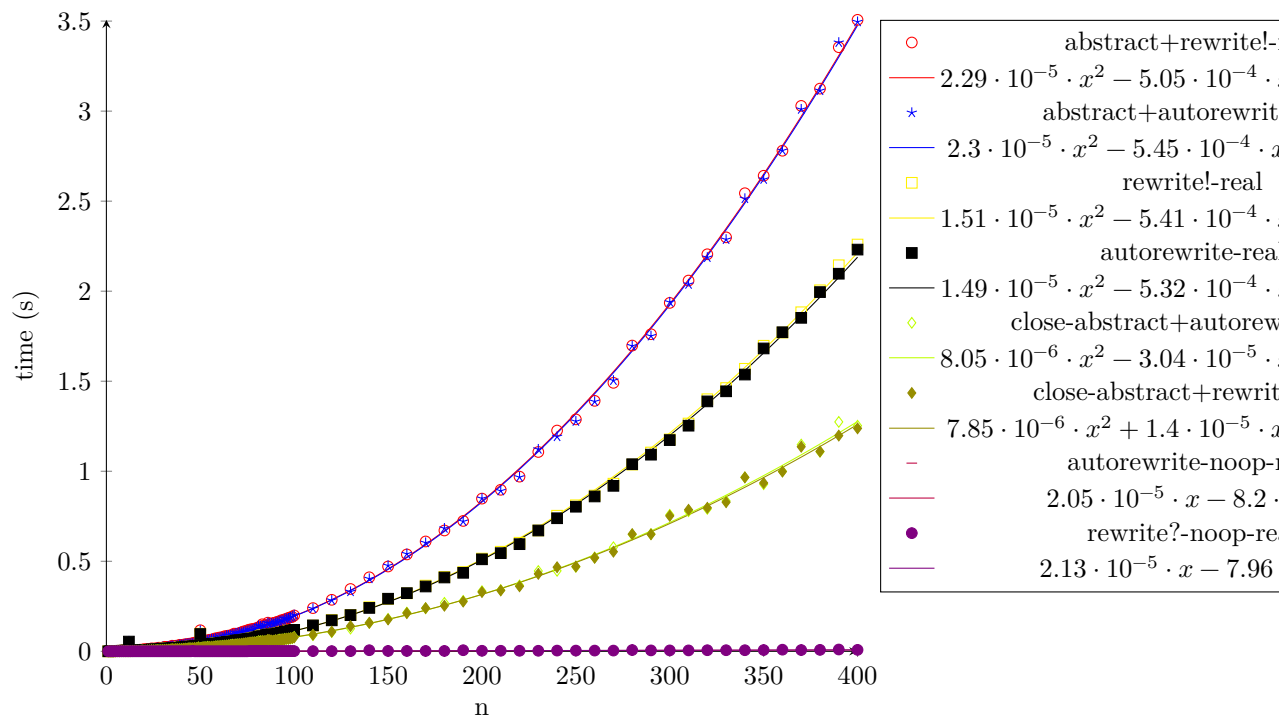- $9.51 \cdot 10^{-7} \cdot x^3 - 9.18 \cdot 10^{-6} \cdot x^2$

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

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

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

The legend entries (partially cut off) read:

- autorewrite-noop-r
- $3.15 \cdot 10^{-8} \cdot x^2 + 3.26 \cdot 10^{-6} \cdot x$
- try-rewrite-noop-r
- $3.16 \cdot 10^{-8} \cdot x^2 + 1.4 \cdot 10^{-6} \cdot x$
- try-rewrite?-noop-
- $3.16 \cdot 10^{-8} \cdot x^2 + 1.42 \cdot 10^{-6} \cdot x$
- try-rewrite!-noop-r
- $3.16 \cdot 10^{-8} \cdot x^2 + 1.76 \cdot 10^{-6} \cdot x$
- try-ssr-rewrite?-noop
- $3.08 \cdot 10^{-7} \cdot x + 3.43$
- try-ssr-rewrite-noop
- $3.76 \cdot 10^{-7} \cdot x - 1.9$
- try-ssr-rewrite!-noop
- $3.96 \cdot 10^{-7} \cdot x - 1.99$

7

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

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

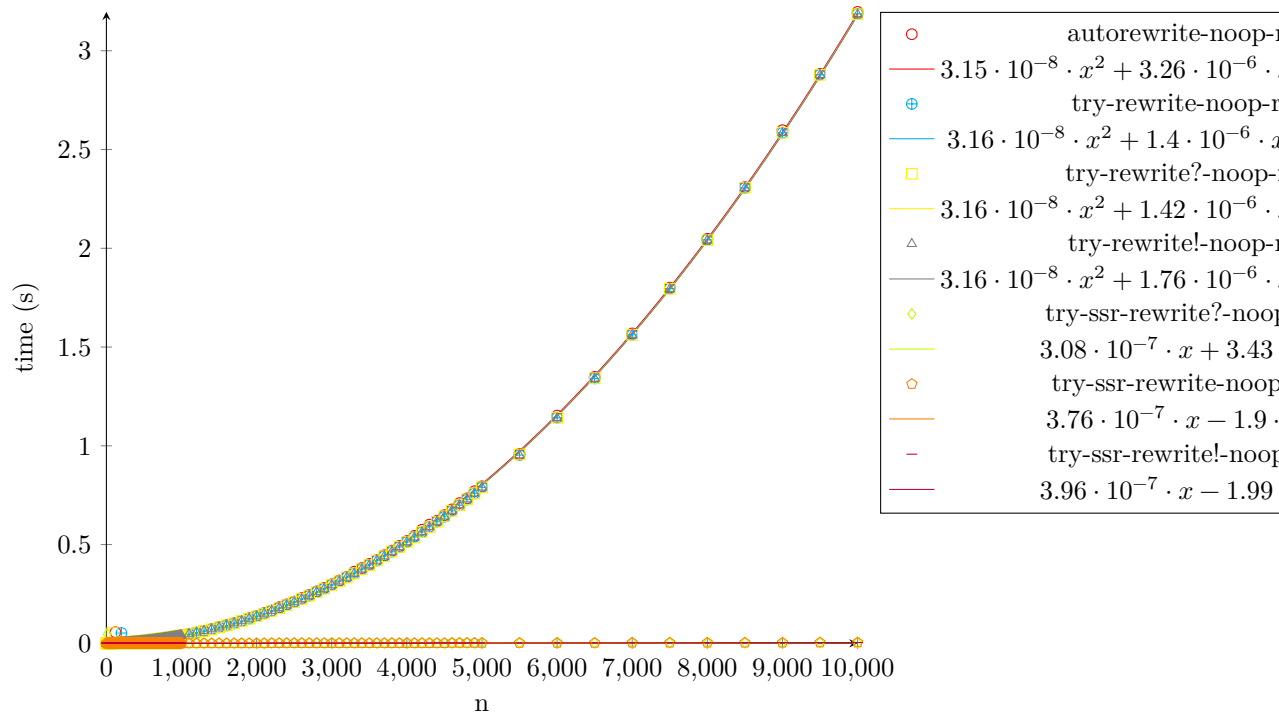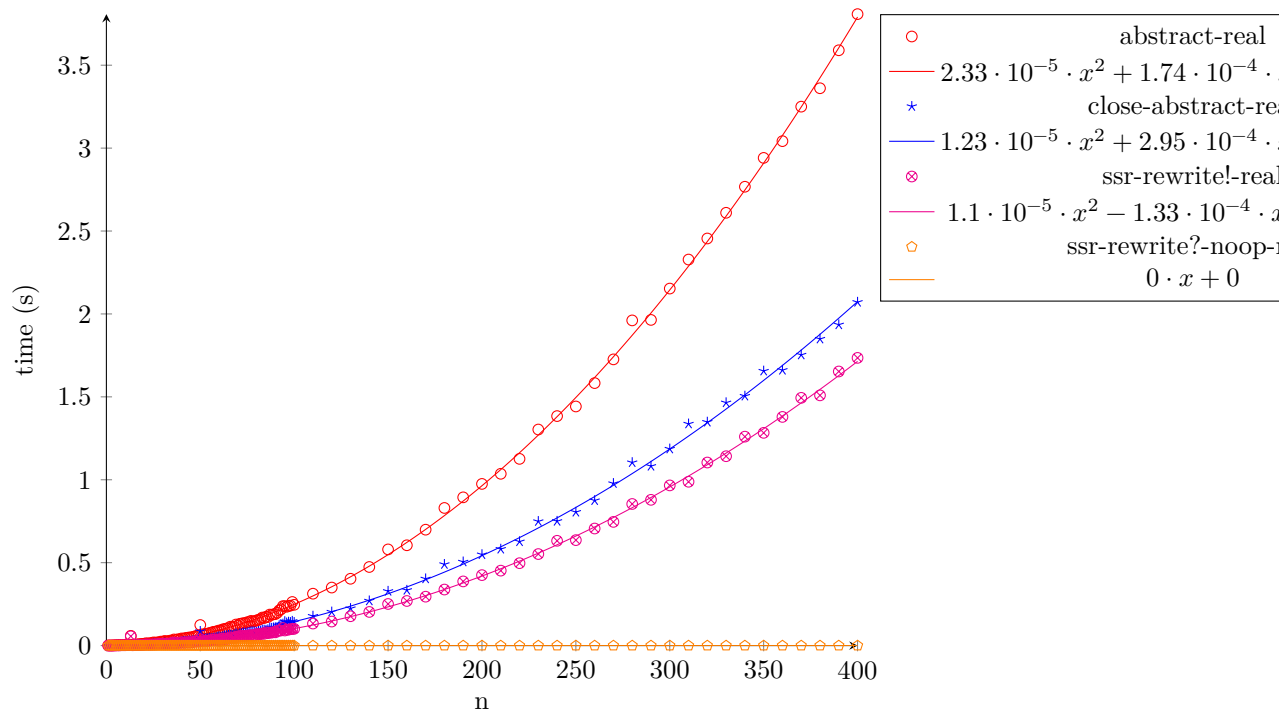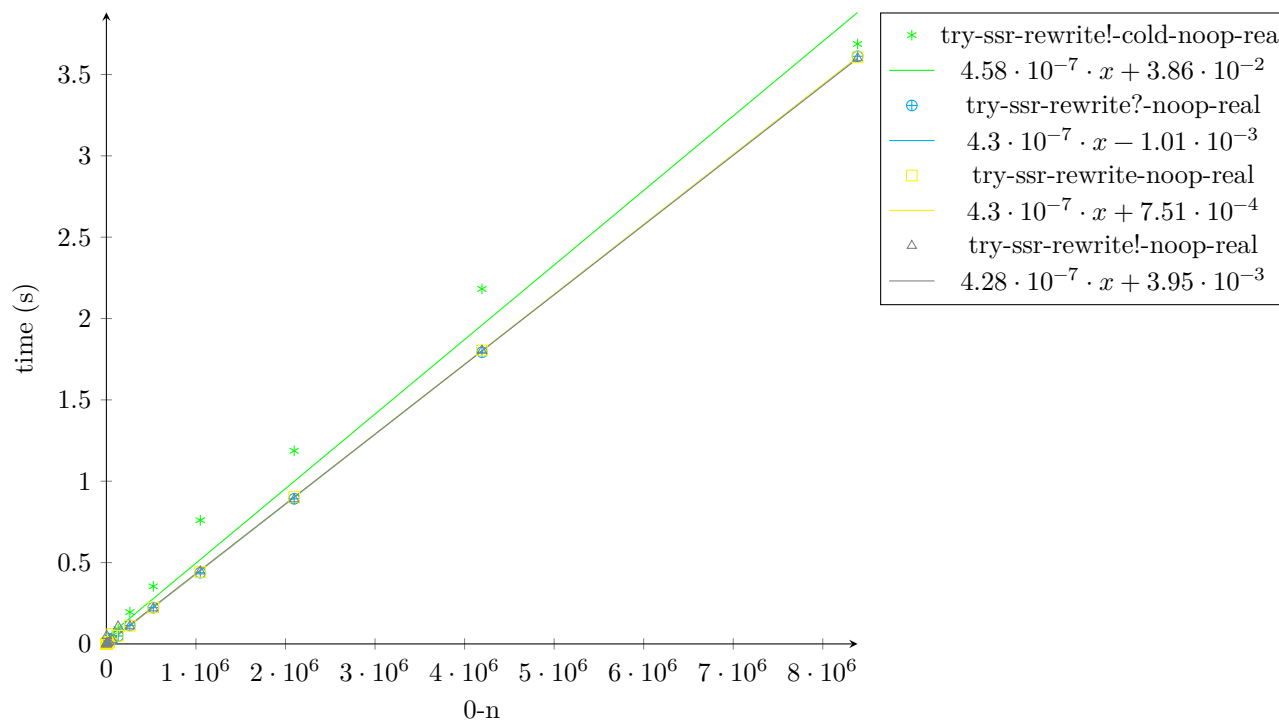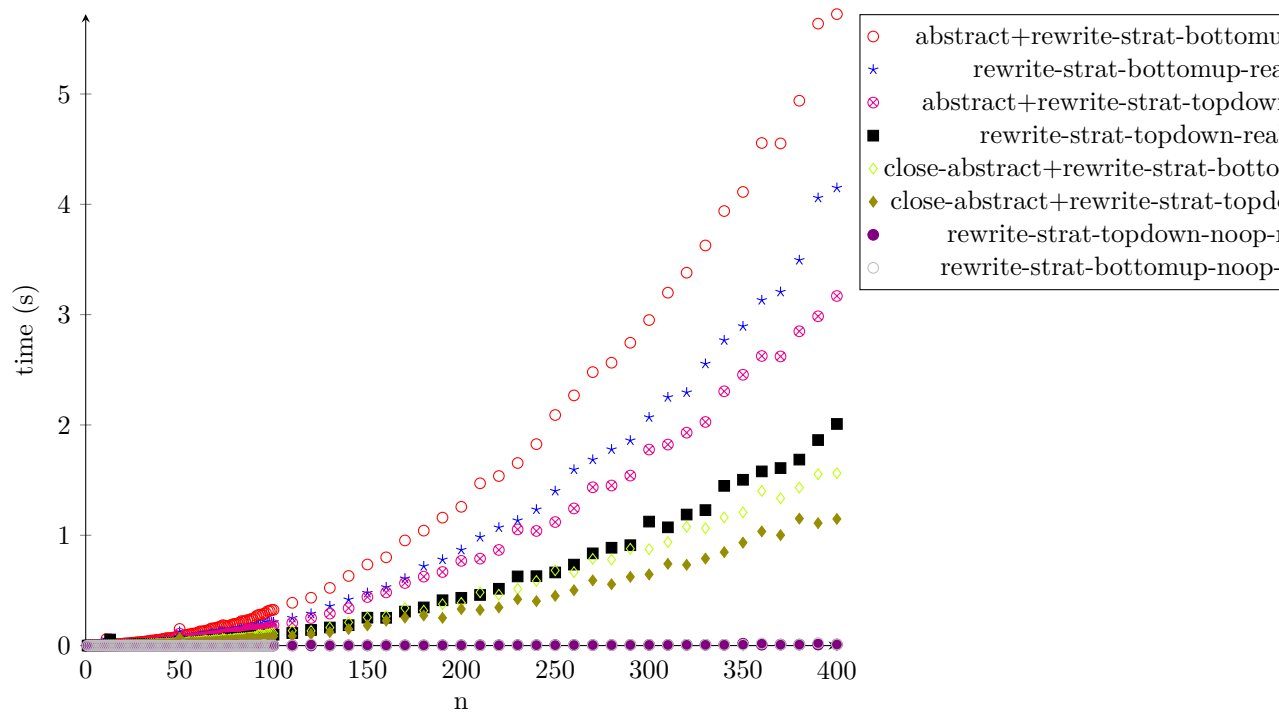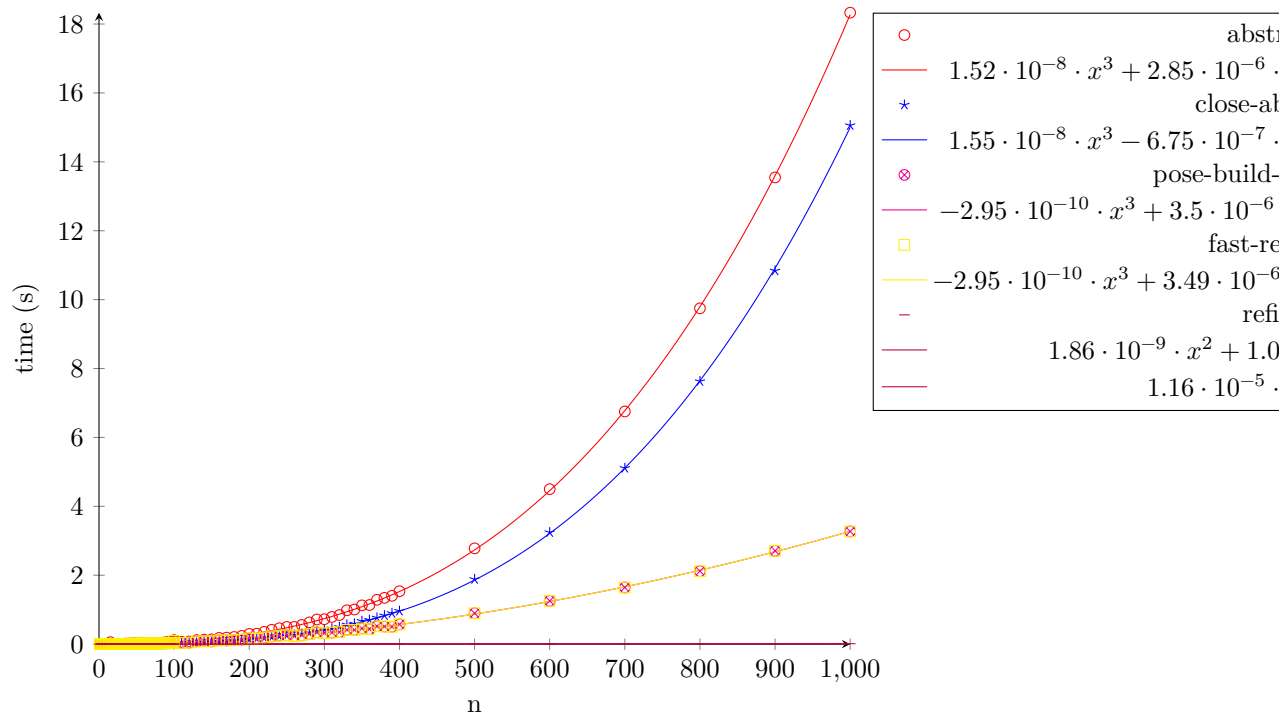Figure 10: timing-rewrite-repeated-app-rewrite-strat
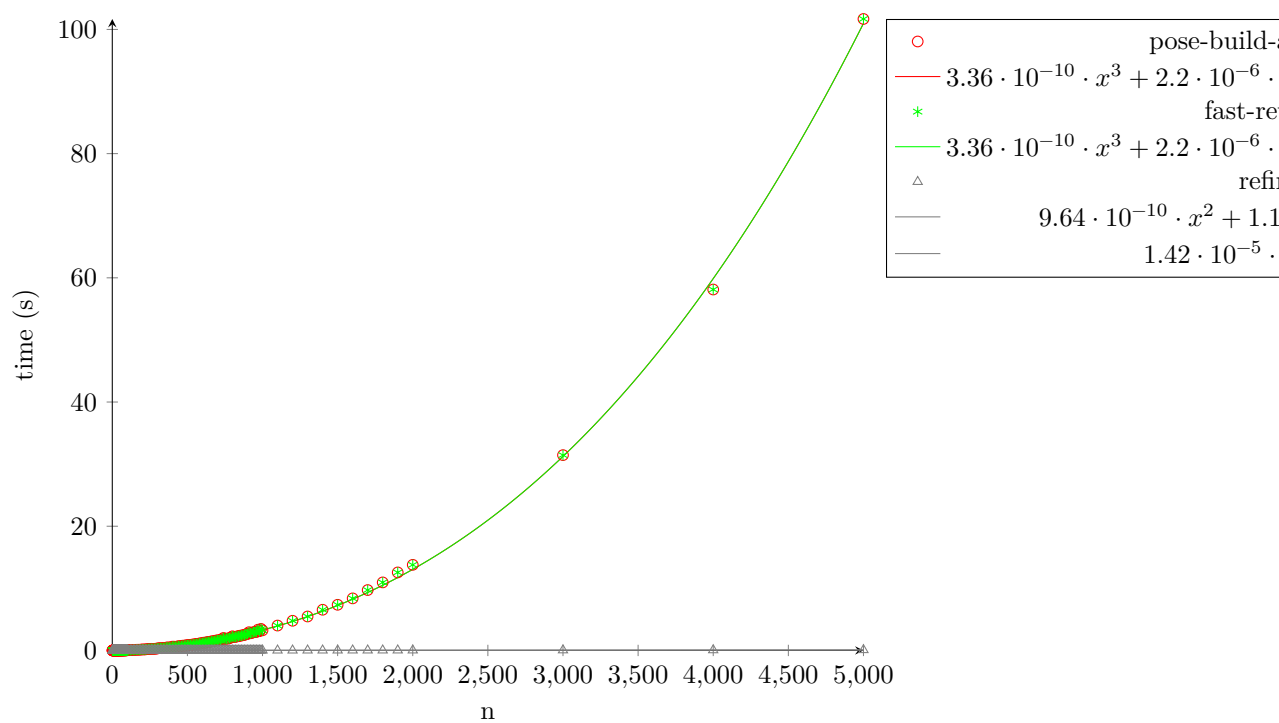
Figure 11: timing-rewrite-repeated-app-fast-rewrite

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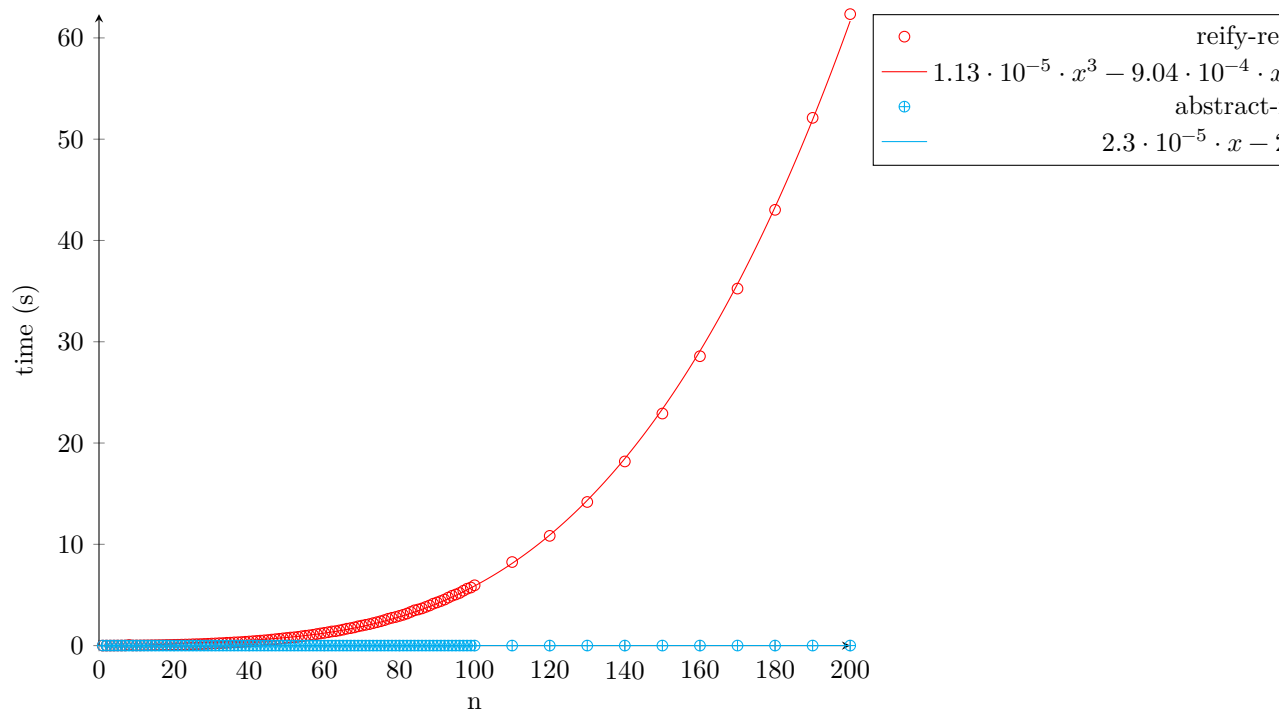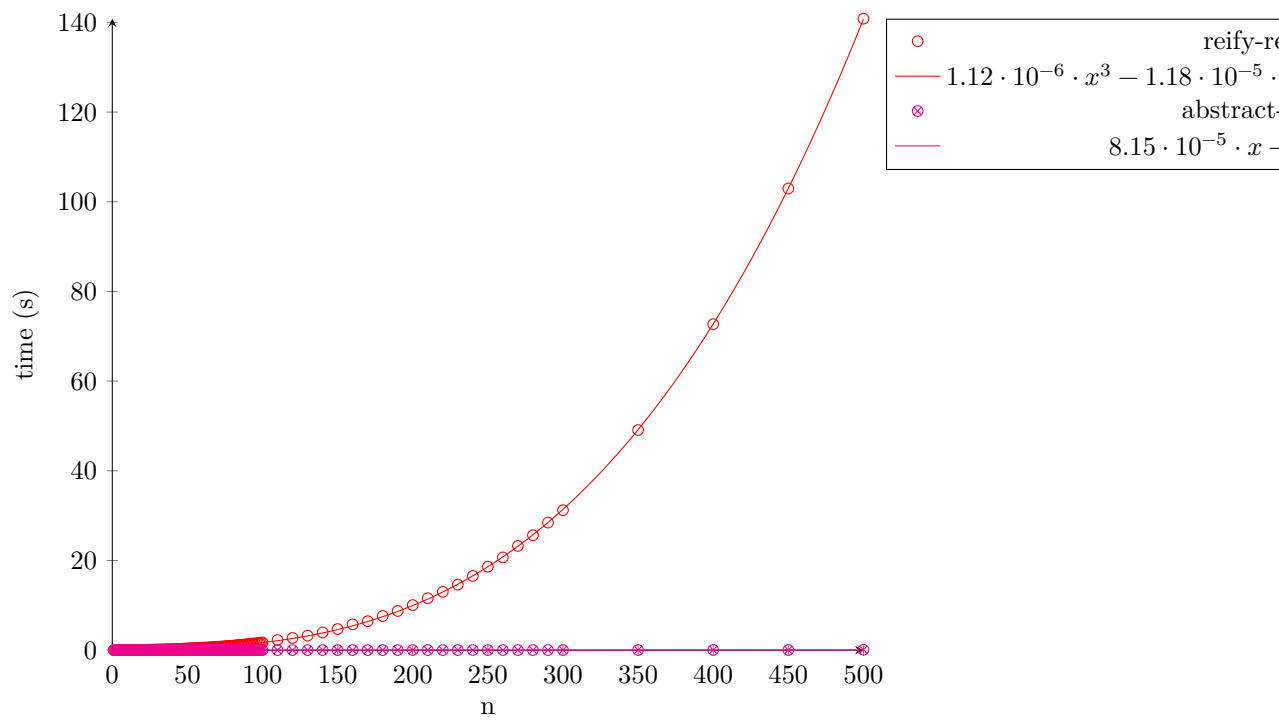
Figure 13: timing-typeclass-reification-let-in-HOAS

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