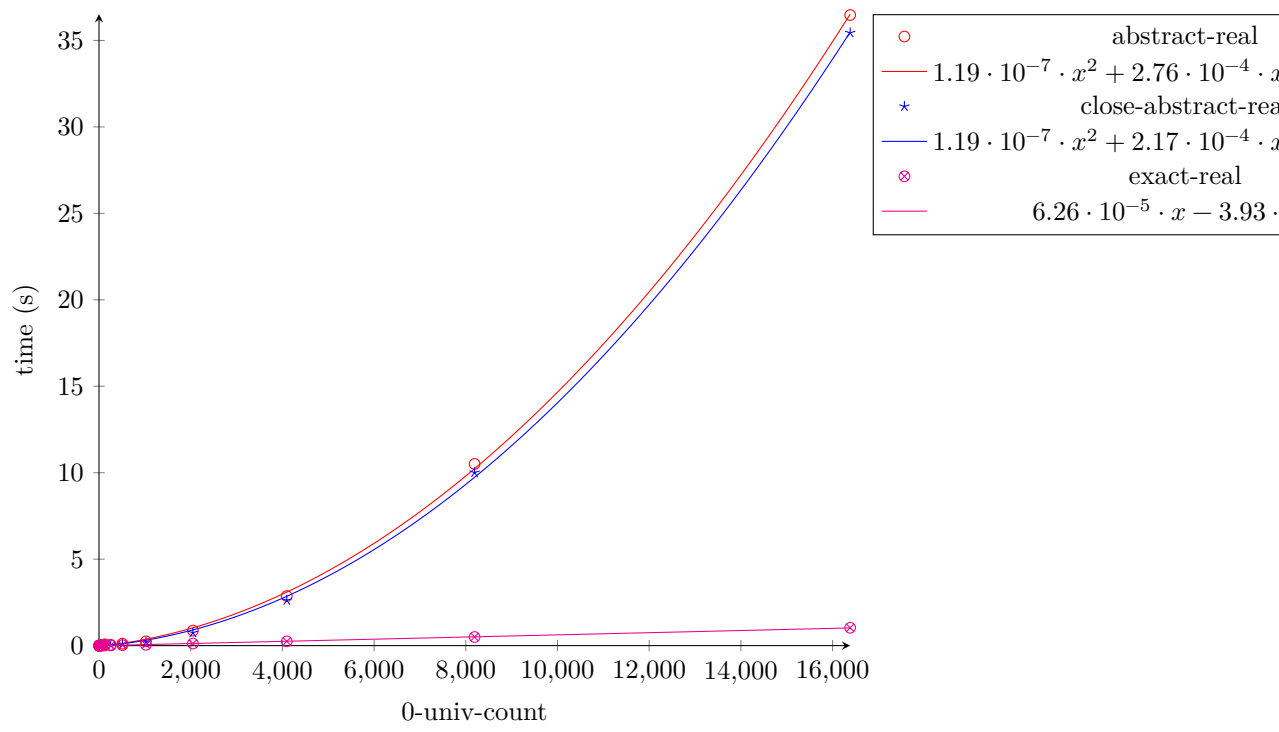Figure 1: timing-pattern

1

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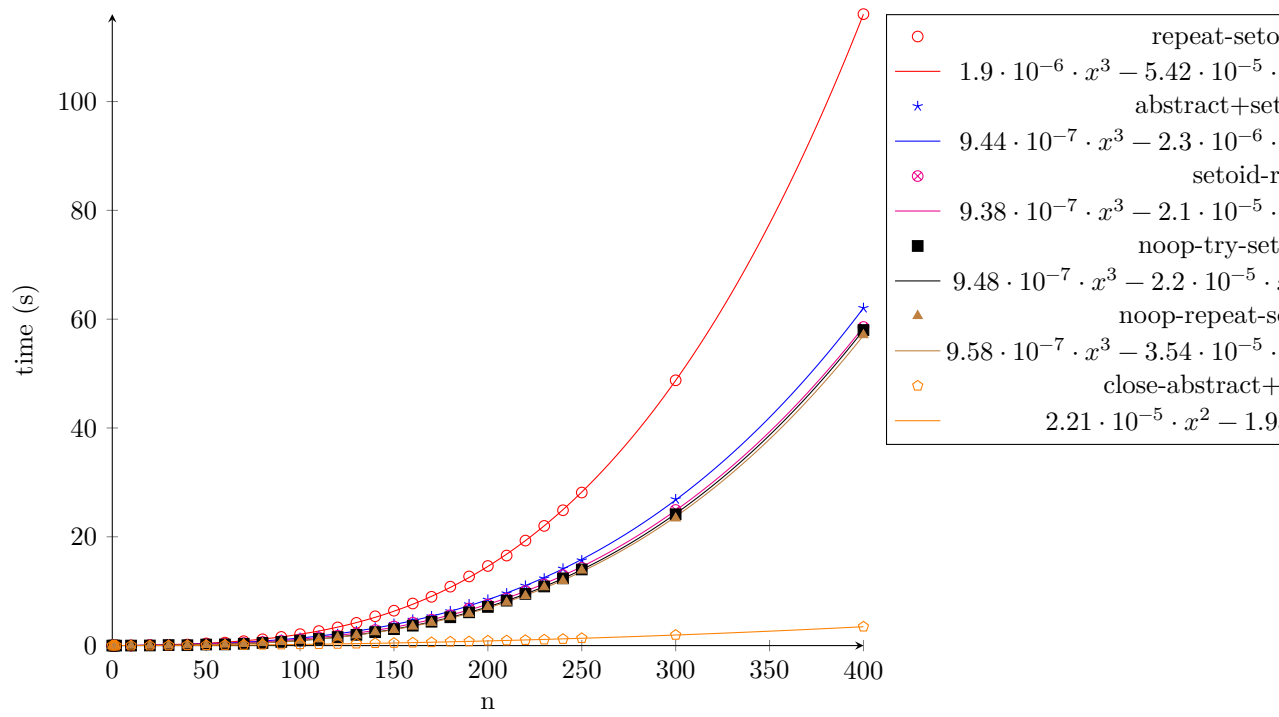
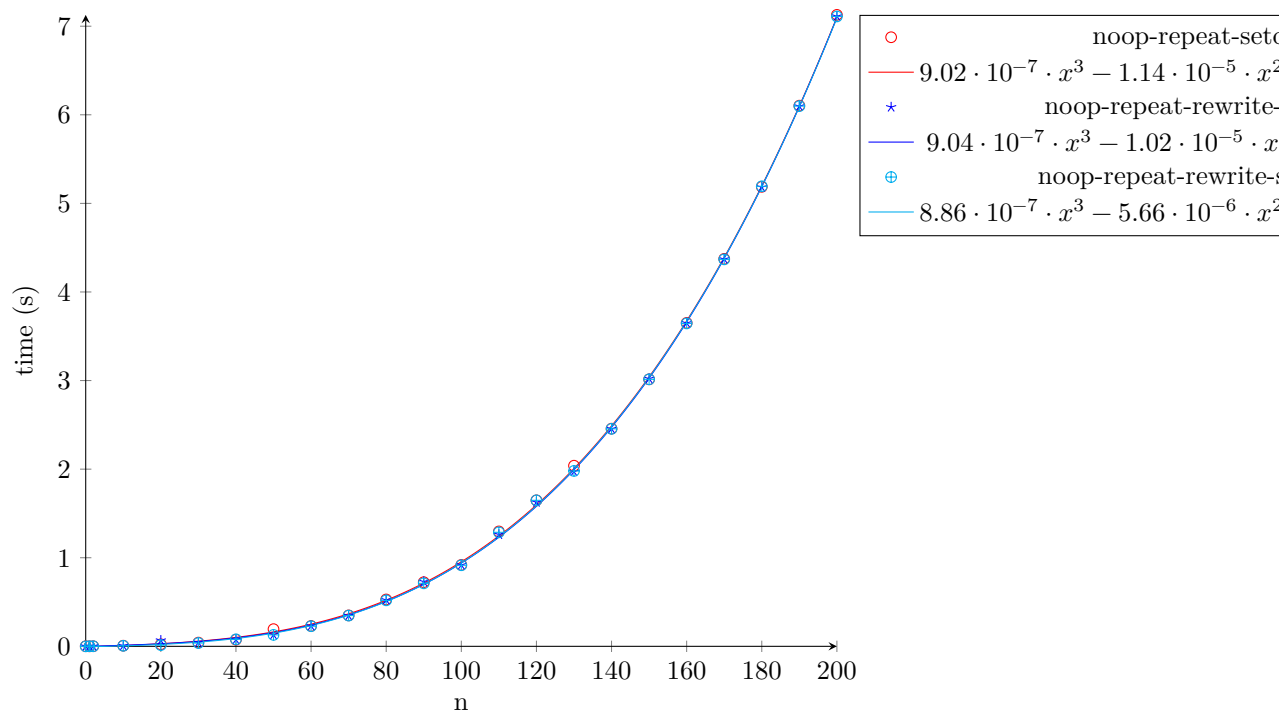Figure 3: timing-repeat-setoid-rewrite-under-binders

3

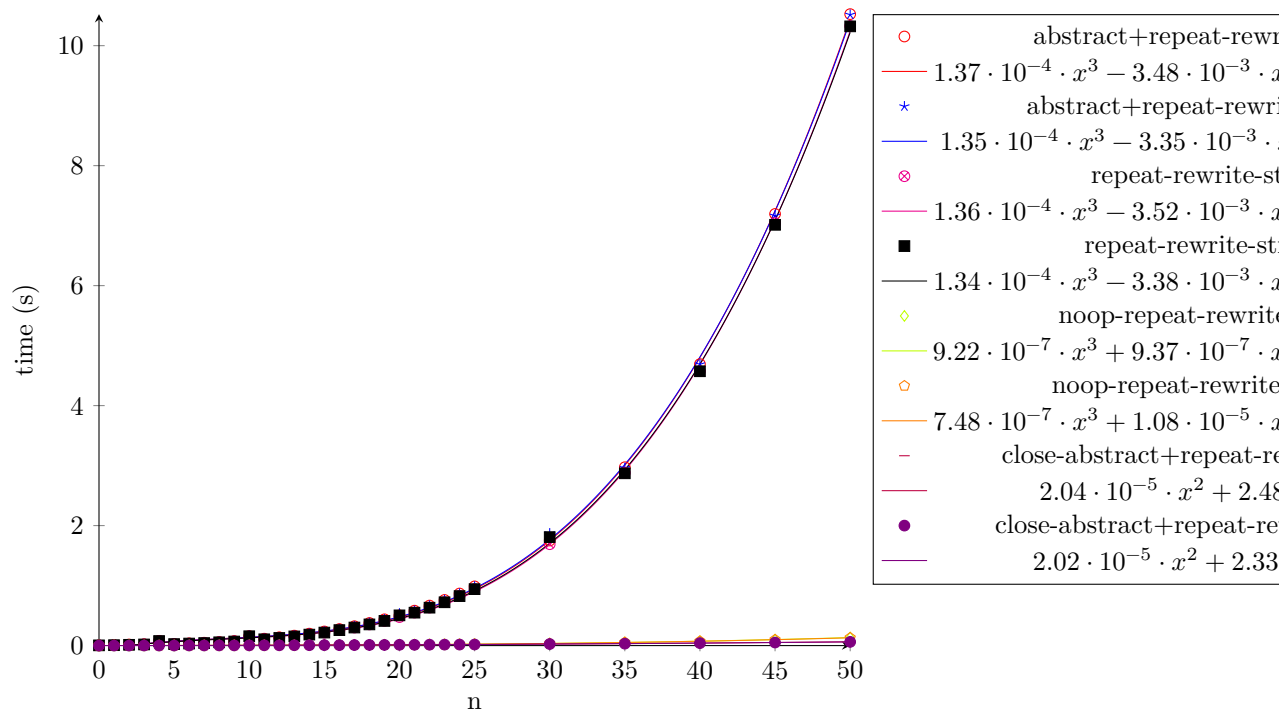Figure 4: timing-repeat-setoid-rewrite-under-binders-noop
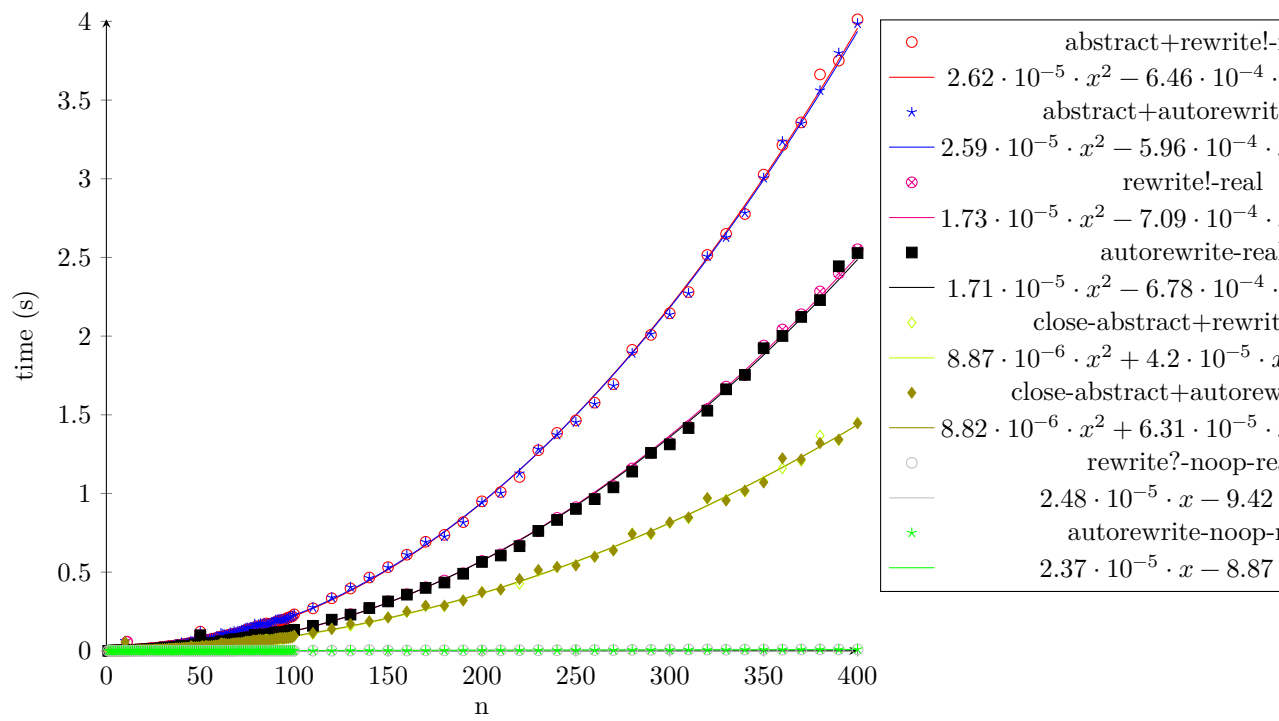
4

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

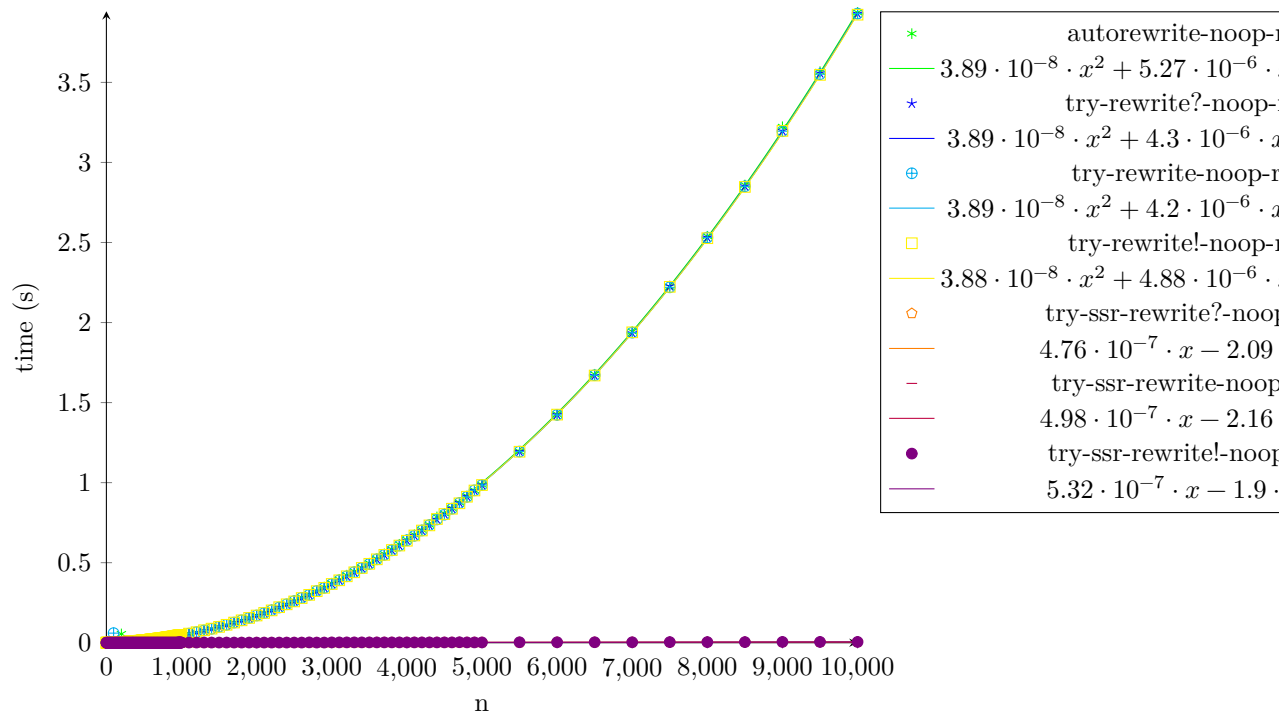Figure 6: timing-rewrite-repeated-app-autorewrite

Figure 7: timing-rewrite-repeated-app-autorewrite-noop
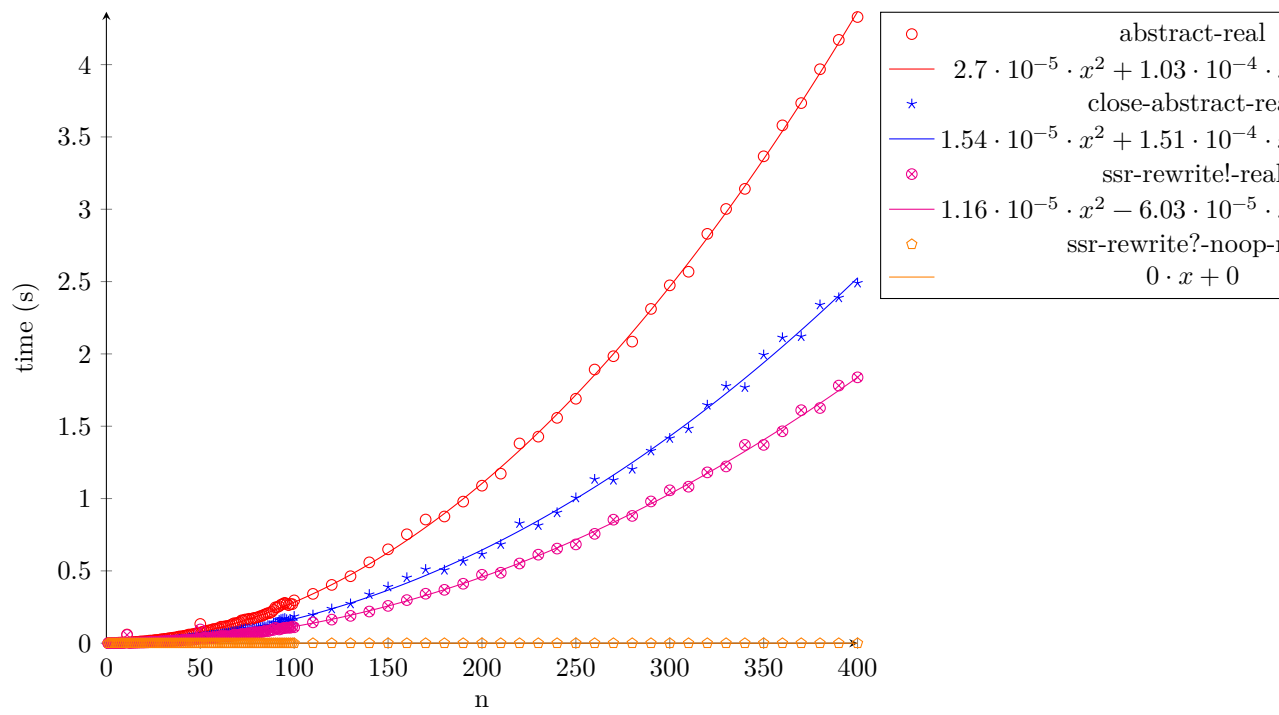
Figure 8: timing-rewrite-repeated-app-ssrrewrite

8
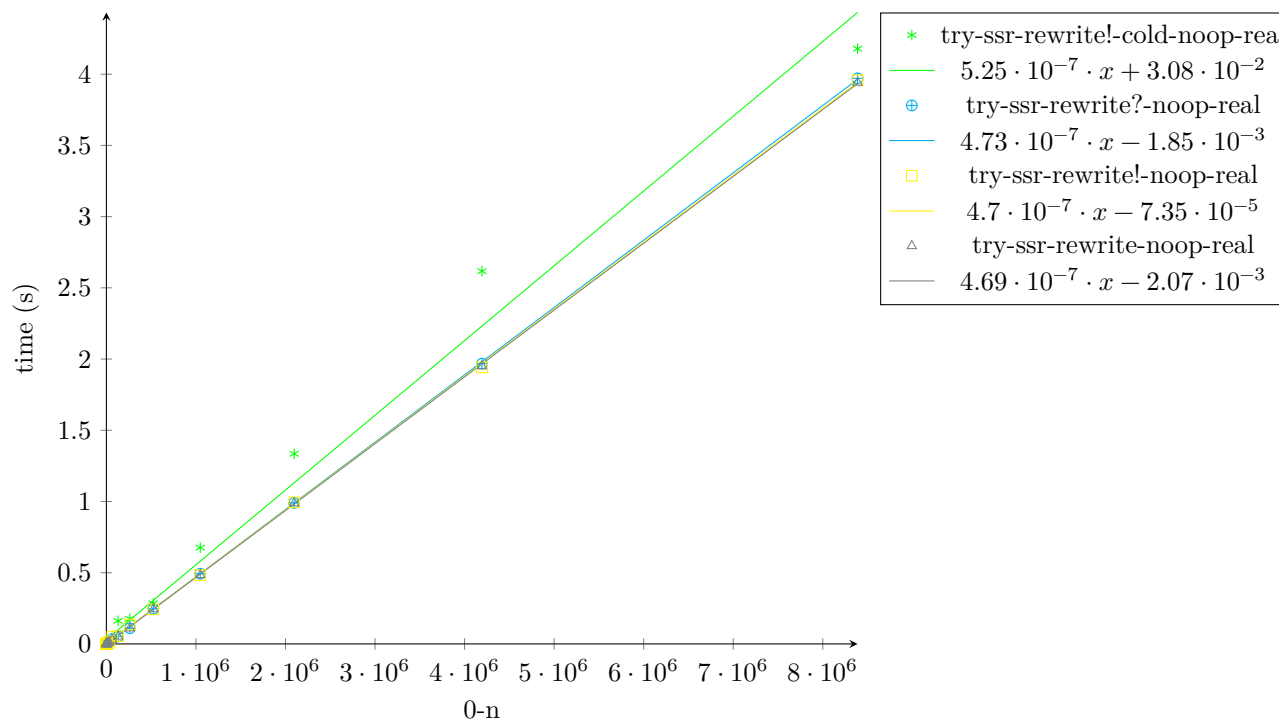
Figure 9: timing-rewrite-repeated-app-ssrrewrite-noop param-1-lgn 1
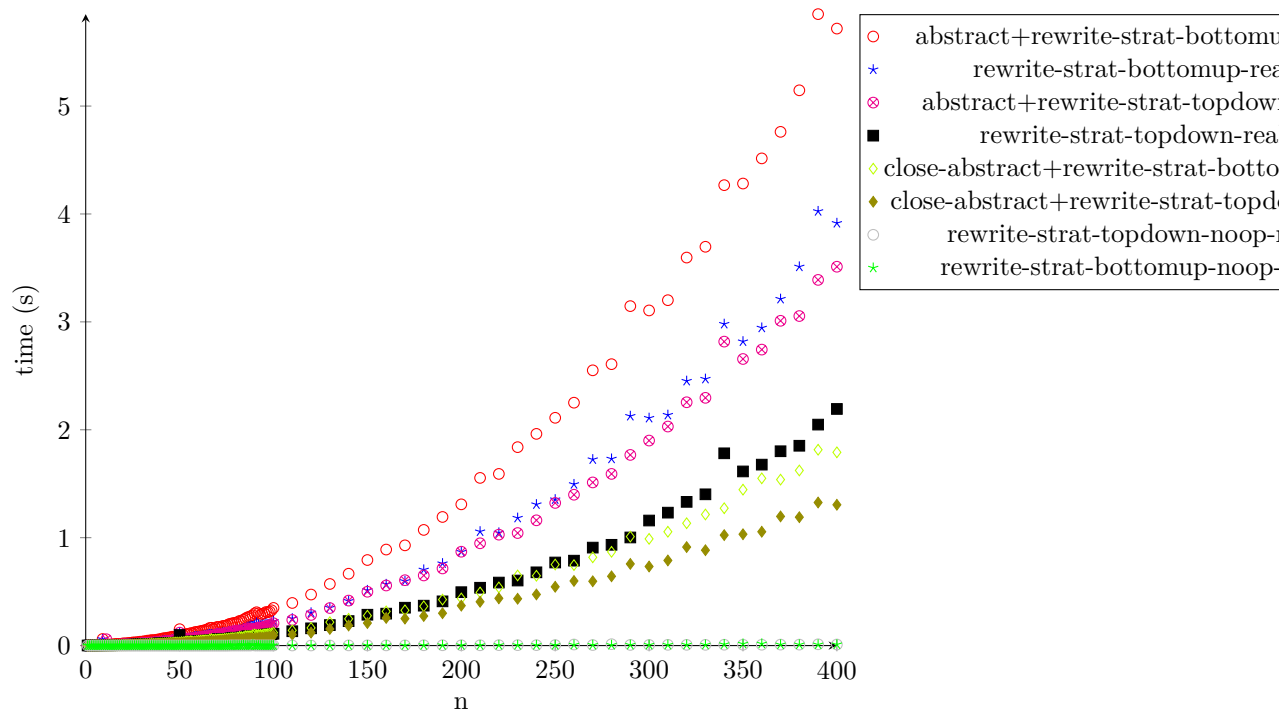
Figure 10: timing-rewrite-repeated-app-rewrite-strat

The legend of the figure contains the following entries:
- 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-...
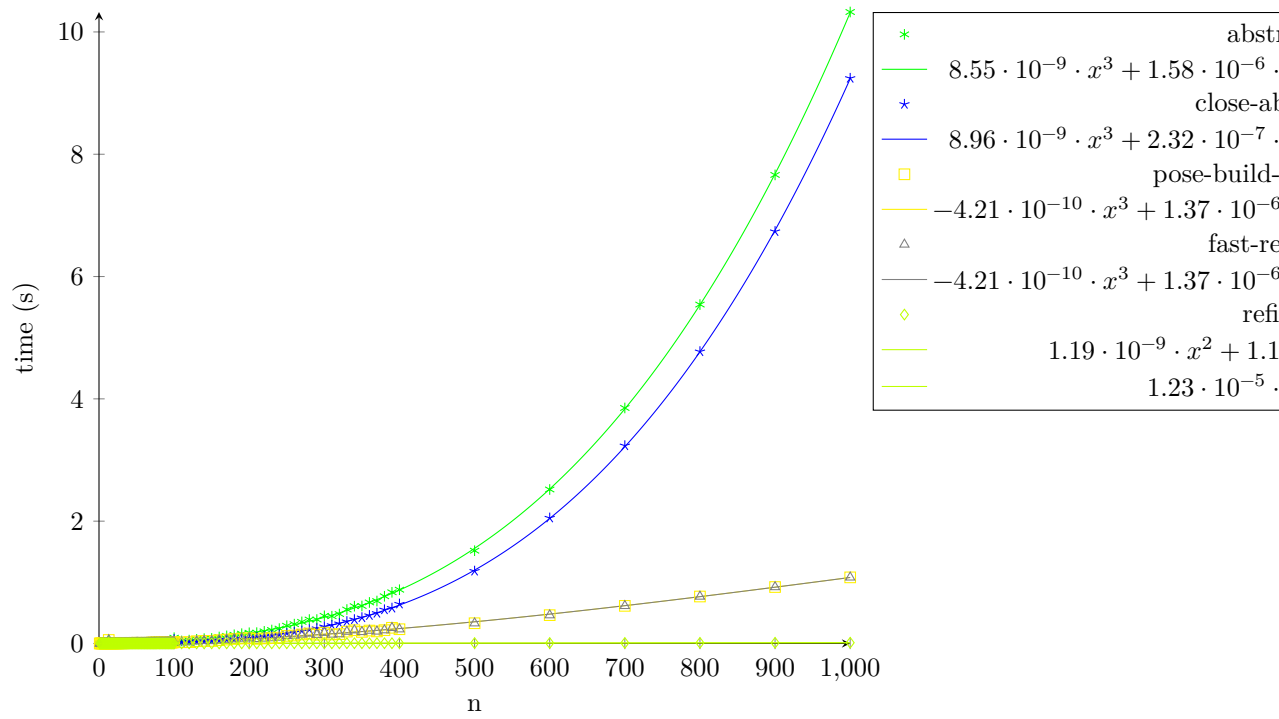
Figure 11: timing-rewrite-repeated-app-fast-rewrite
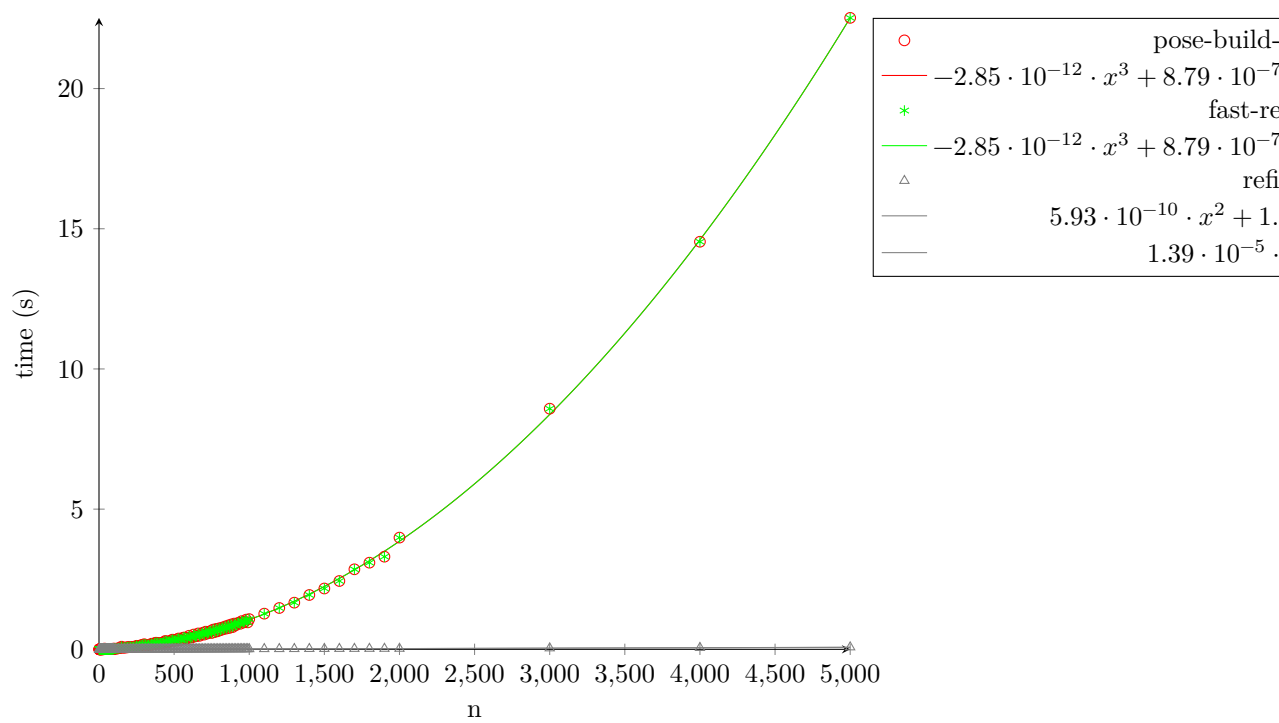
Figure 12: timing-rewrite-repeated-app-fast-rewrite-no-abstract
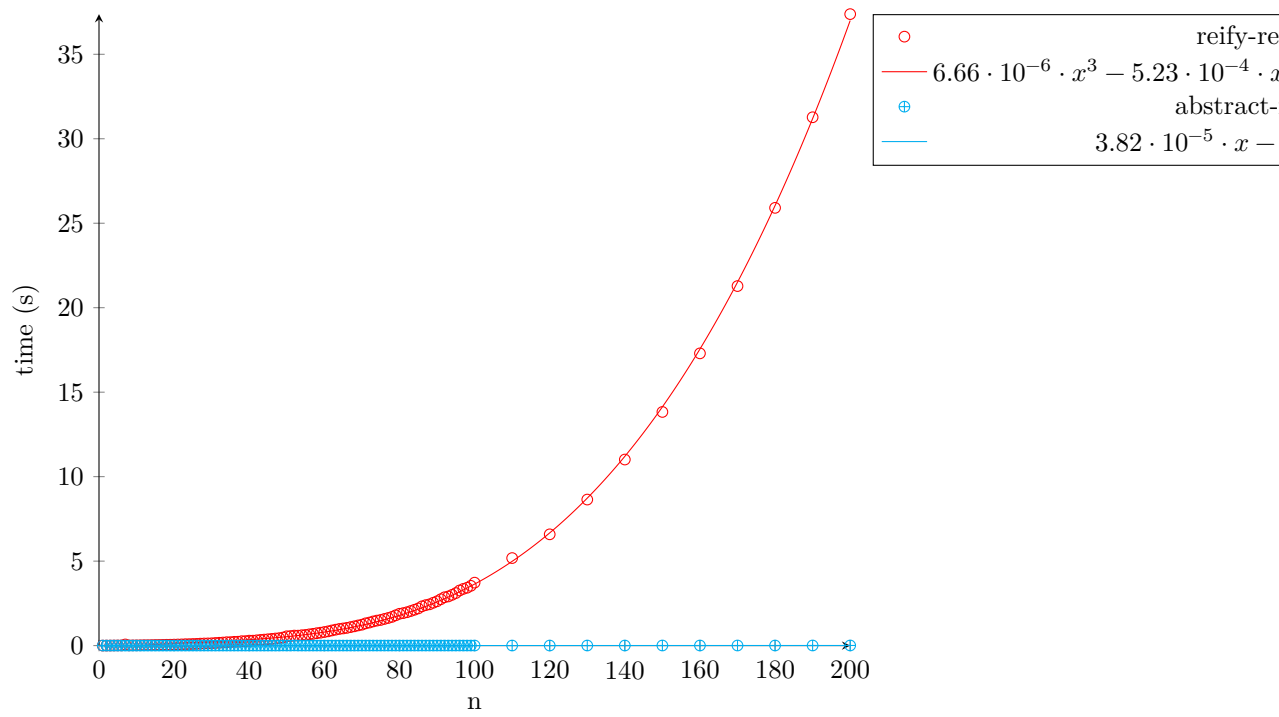
Figure 13: timing-typeclass-reification-let-in-HOAS

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

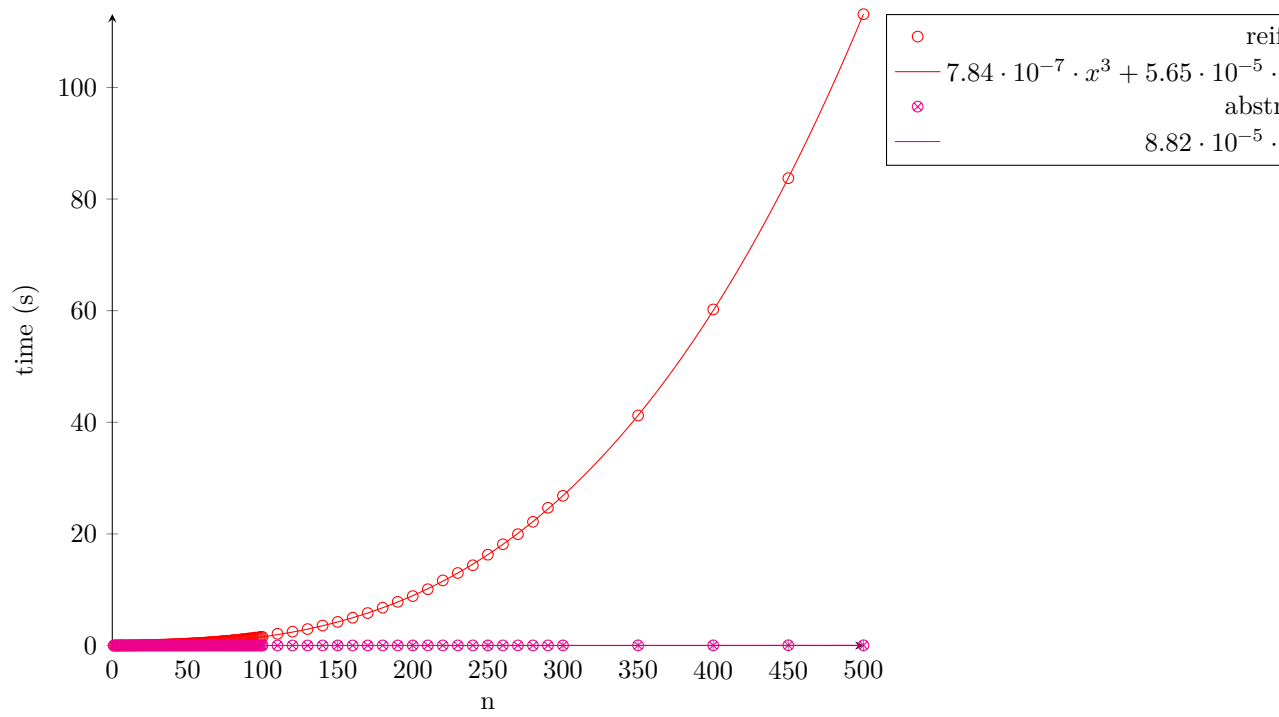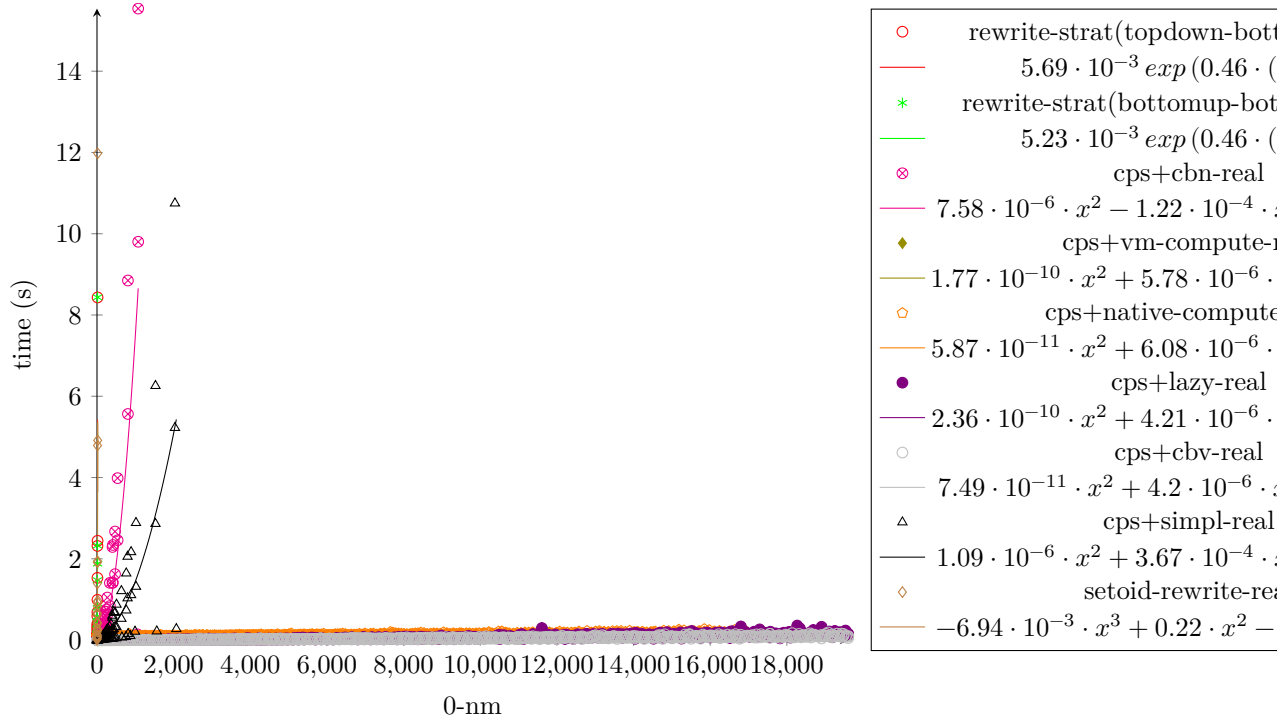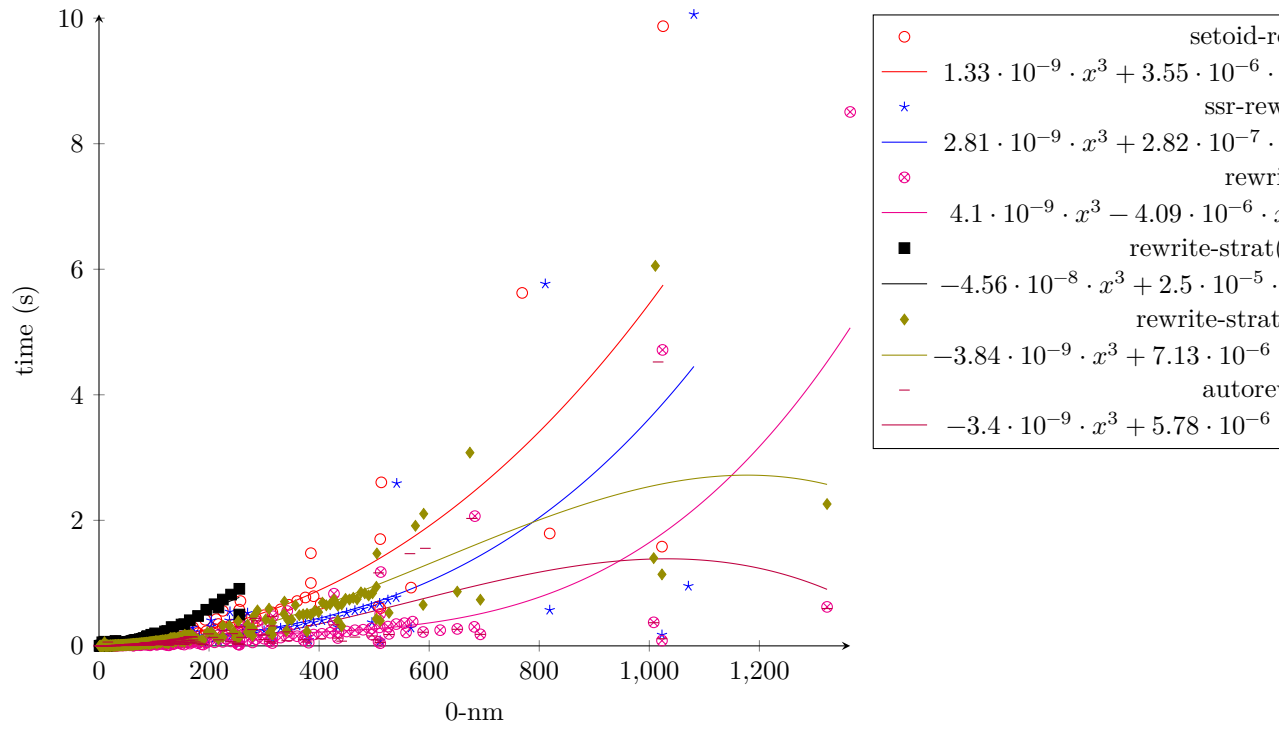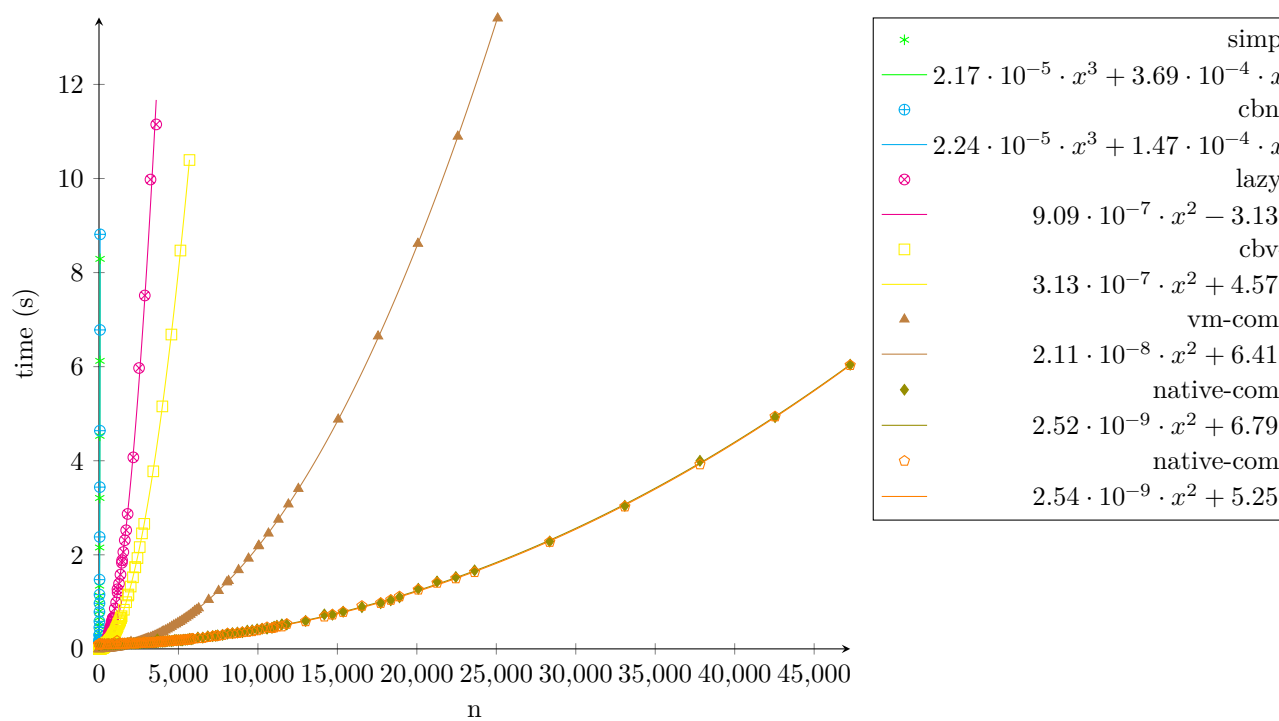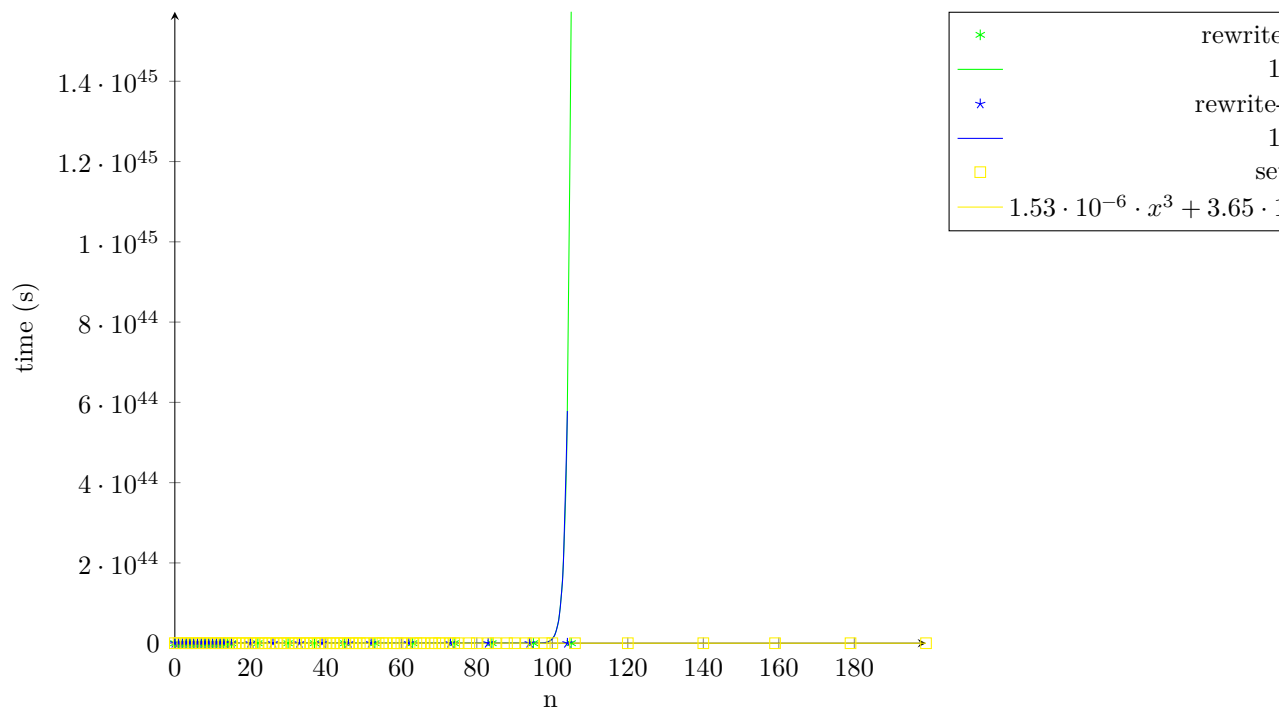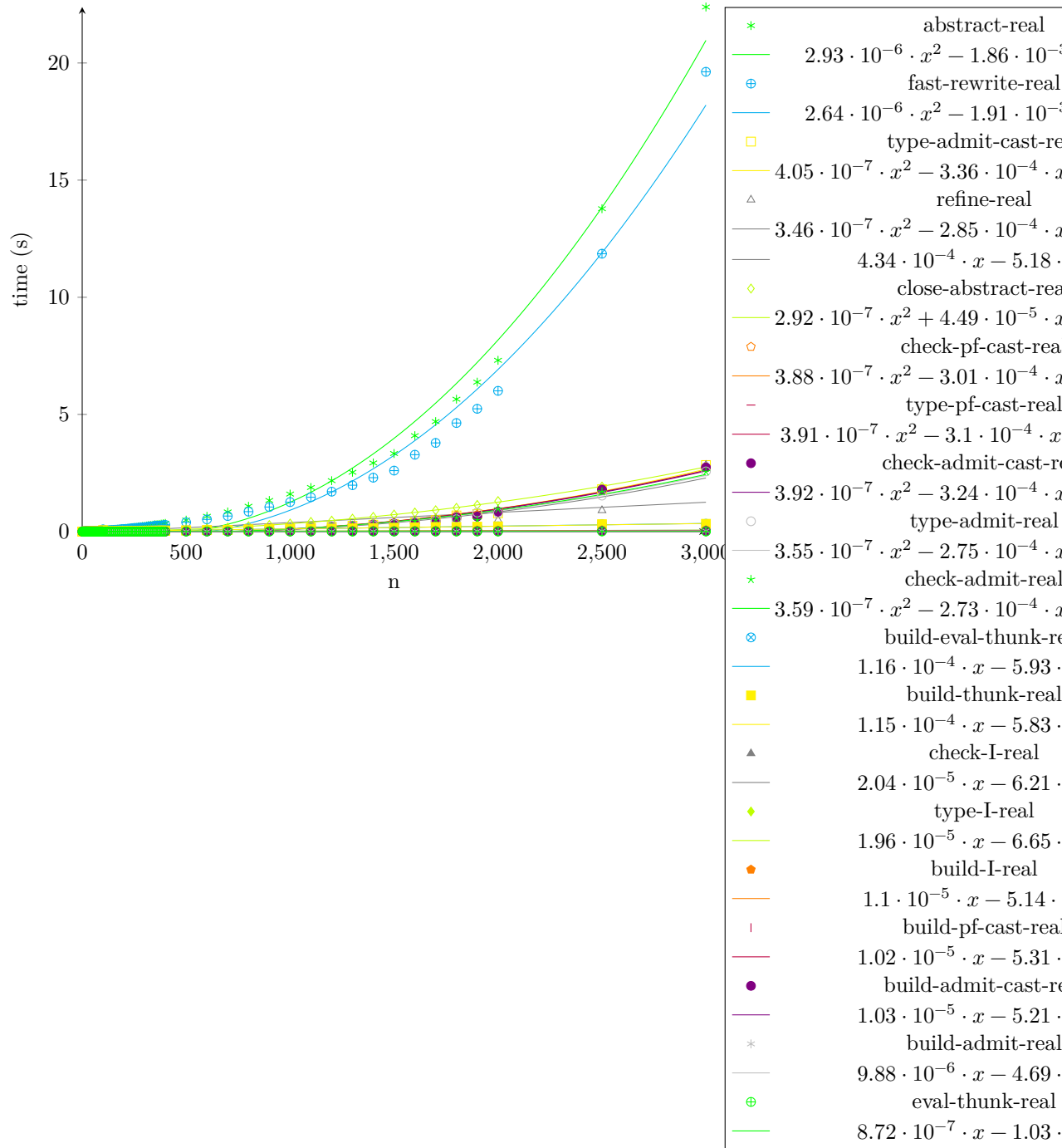|	
✳	abstract-real
—	$2.93 \cdot 10^{-6} \cdot x^2 - 1.86 \cdot 10^{-3}$
⊕	fast-rewrite-real
—	$2.64 \cdot 10^{-6} \cdot x^2 - 1.91 \cdot 10^{-3}$
□	type-admit-cast-re
—	$4.05 \cdot 10^{-7} \cdot x^2 - 3.36 \cdot 10^{-4} \cdot x$
△	refine-real
—	$3.46 \cdot 10^{-7} \cdot x^2 - 2.85 \cdot 10^{-4} \cdot x$
—	$4.34 \cdot 10^{-4} \cdot x - 5.18 \cdot$
◇	close-abstract-rea
—	$2.92 \cdot 10^{-7} \cdot x^2 + 4.49 \cdot 10^{-5} \cdot x$
⬠	check-pf-cast-rea
—	$3.88 \cdot 10^{-7} \cdot x^2 - 3.01 \cdot 10^{-4} \cdot x$
—	type-pf-cast-real
—	$3.91 \cdot 10^{-7} \cdot x^2 - 3.1 \cdot 10^{-4} \cdot x$
●	check-admit-cast-re
—	$3.92 \cdot 10^{-7} \cdot x^2 - 3.24 \cdot 10^{-4} \cdot x$
○	type-admit-real
—	$3.55 \cdot 10^{-7} \cdot x^2 - 2.75 \cdot 10^{-4} \cdot x$
✳	check-admit-real
—	$3.59 \cdot 10^{-7} \cdot x^2 - 2.73 \cdot 10^{-4} \cdot x$
⊗	build-eval-thunk-re
—	$1.16 \cdot 10^{-4} \cdot x - 5.93 \cdot$
■	build-thunk-real
—	$1.15 \cdot 10^{-4} \cdot x - 5.83 \cdot$
▲	check-I-real
—	$2.04 \cdot 10^{-5} \cdot x - 6.21 \cdot$
◆	type-I-real
—	$1.96 \cdot 10^{-5} \cdot x - 6.65 \cdot$
⬠	build-I-real
—	$1.1 \cdot 10^{-5} \cdot x - 5.14 \cdot$
⼁	build-pf-cast-real
—	$1.02 \cdot 10^{-5} \cdot x - 5.31 \cdot$
●	build-admit-cast-re
—	$1.03 \cdot 10^{-5} \cdot x - 5.21 \cdot$
✳	build-admit-real
—	$9.88 \cdot 10^{-6} \cdot x - 4.69 \cdot$
⊕	eval-thunk-real
—	$8.72 \cdot 10^{-7} \cdot x - 1.03 \cdot$

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