

Figure 1: timing-pattern

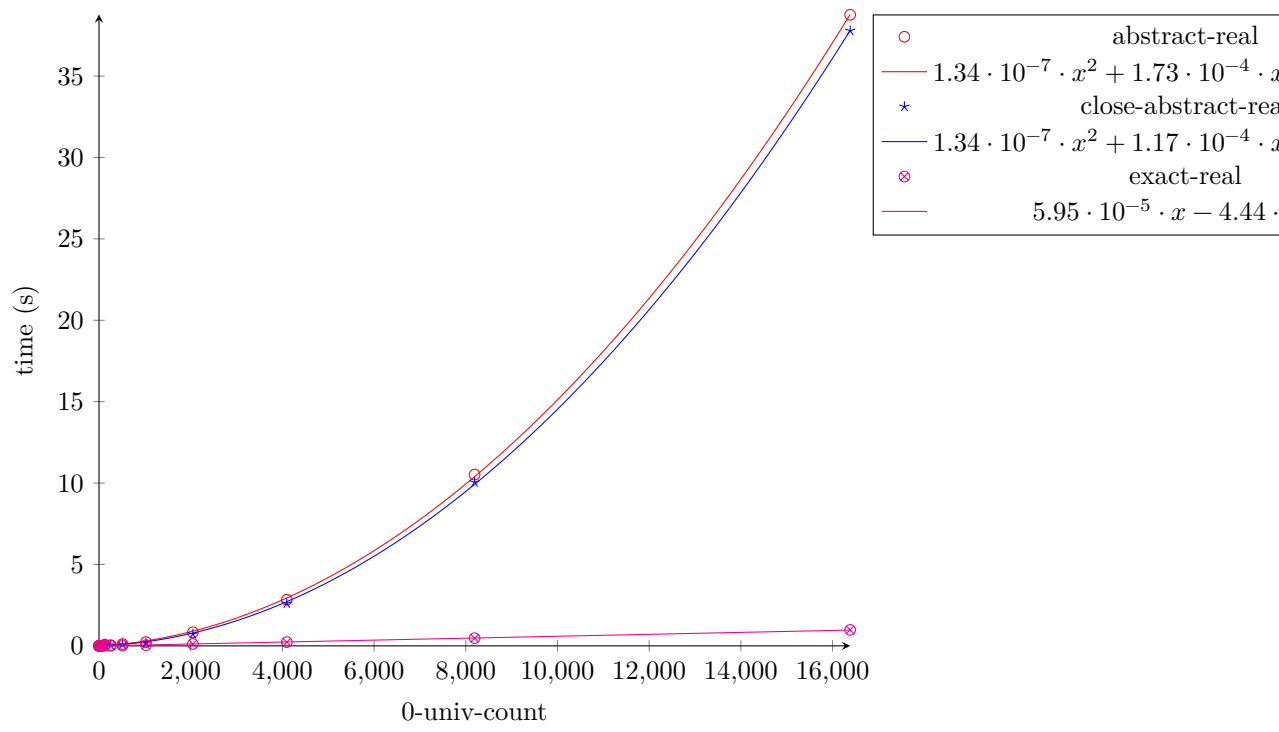


Figure 2: timing-n-polymorphic-universes param-1-n 0

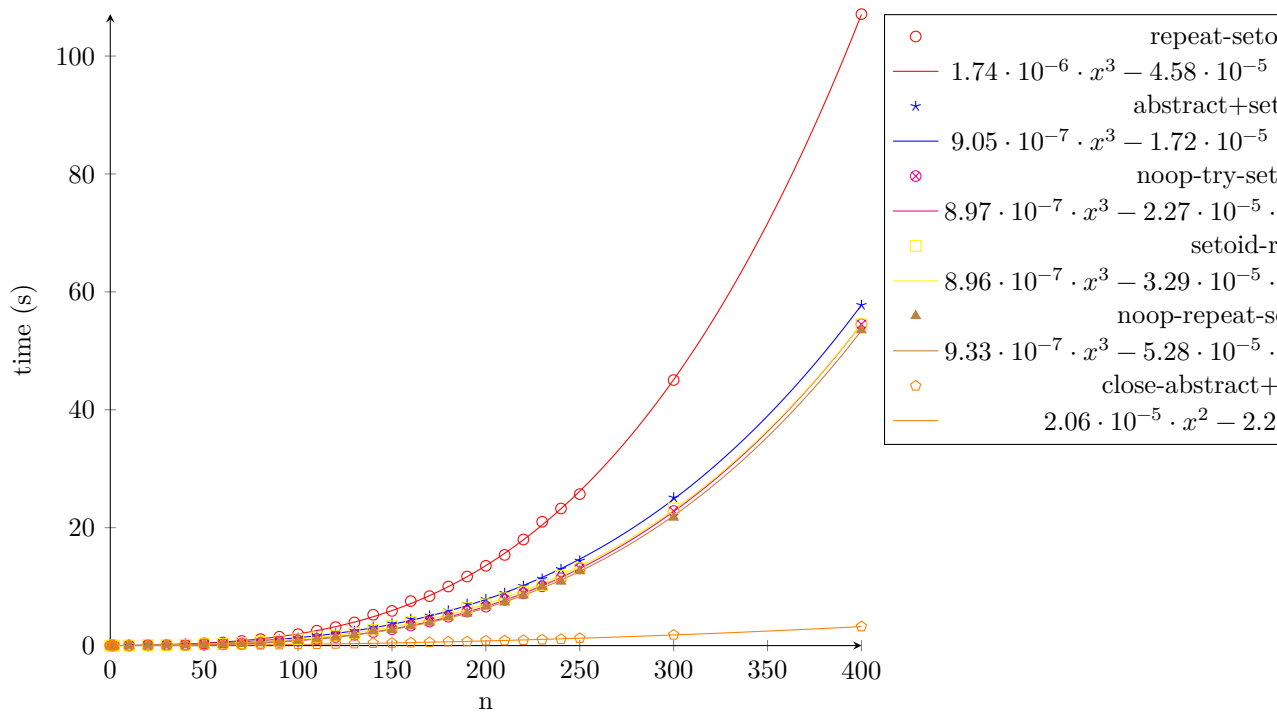


Figure 3: timing-repeat-setoid-rewrite-under-binders

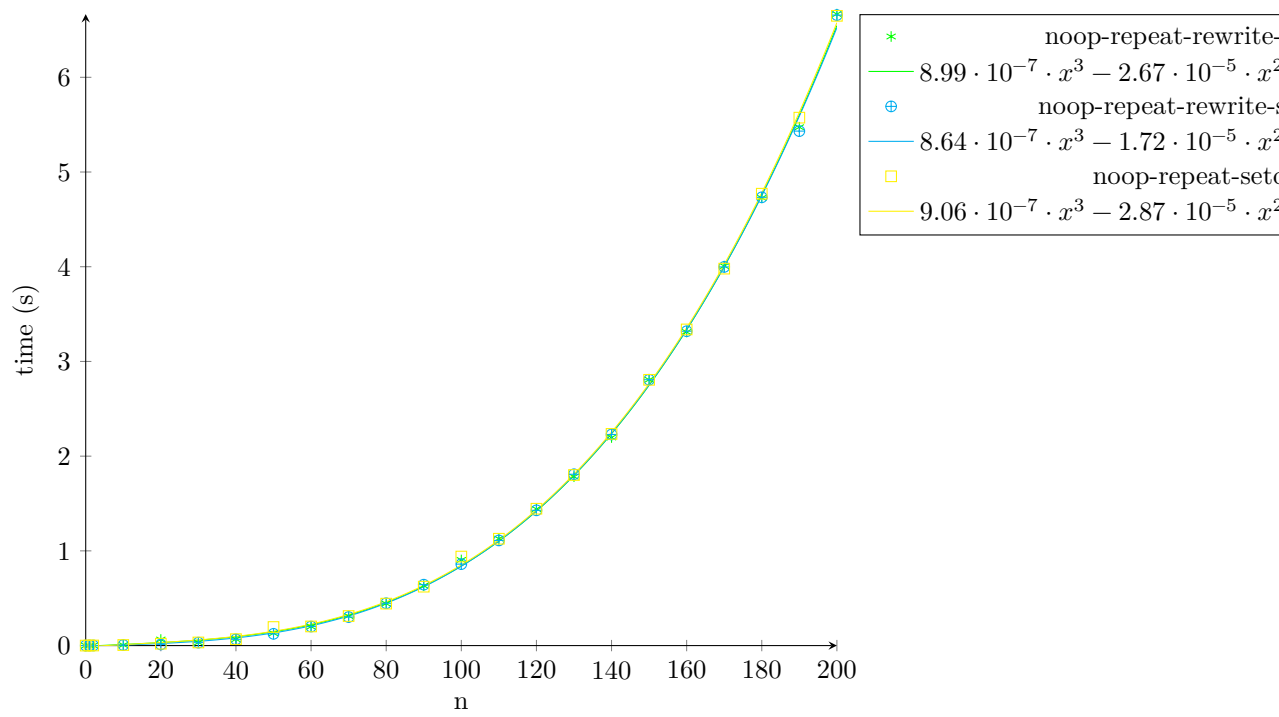


Figure 4: timing-repeat-setoid-rewrite-under-binders-noop

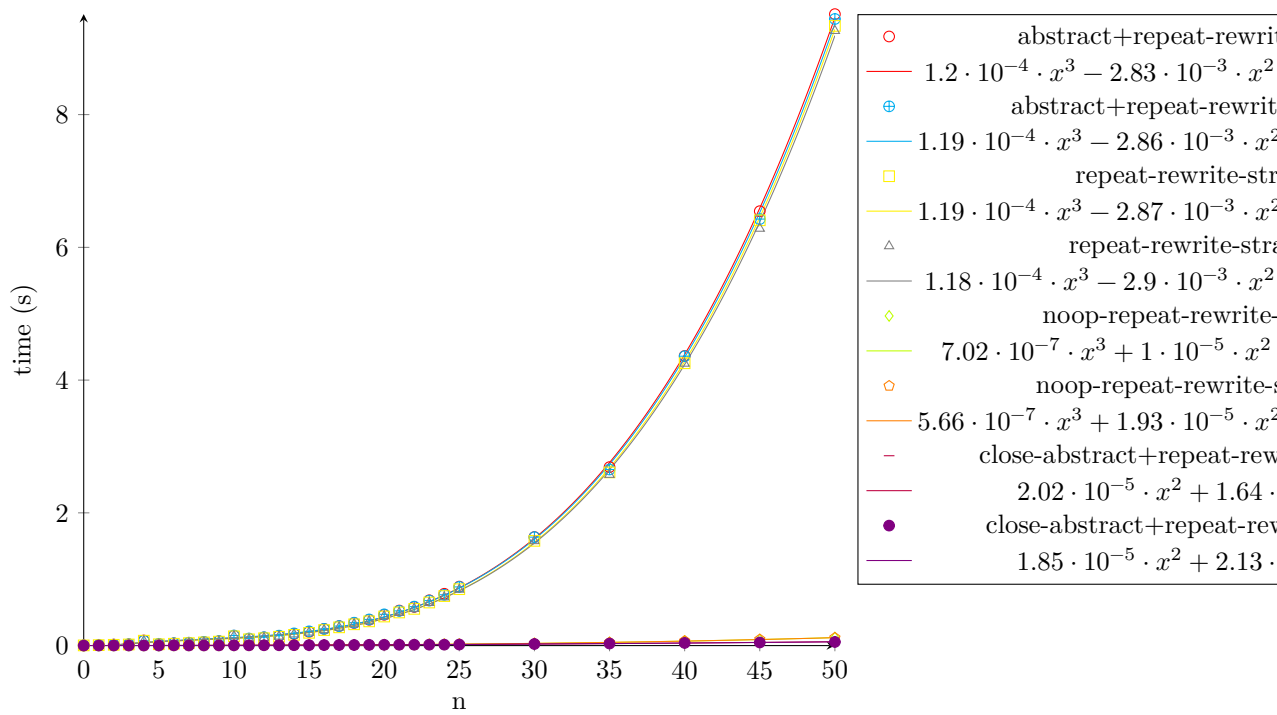


Figure 5: timing-rewrite-strat-under-binders

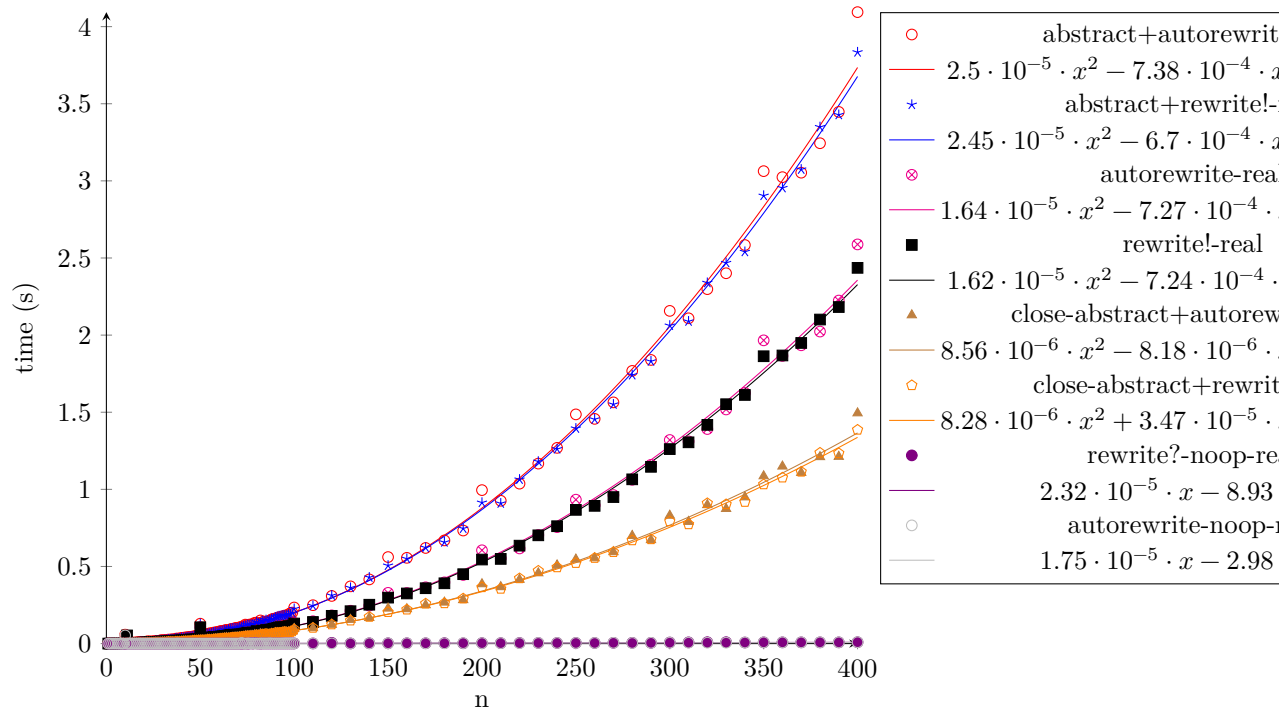


Figure 6: timing-rewrite-repeated-app-autorewrite

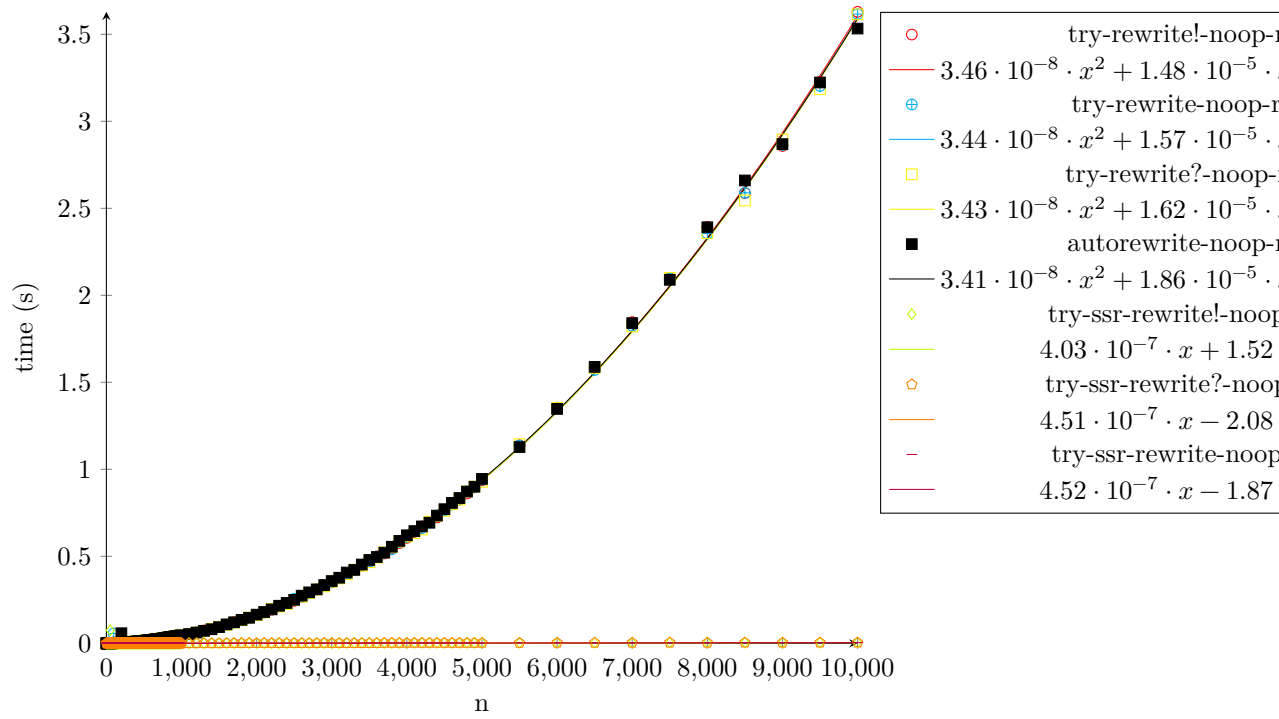


Figure 7: timing-rewrite-repeated-app-autorewrite-noop

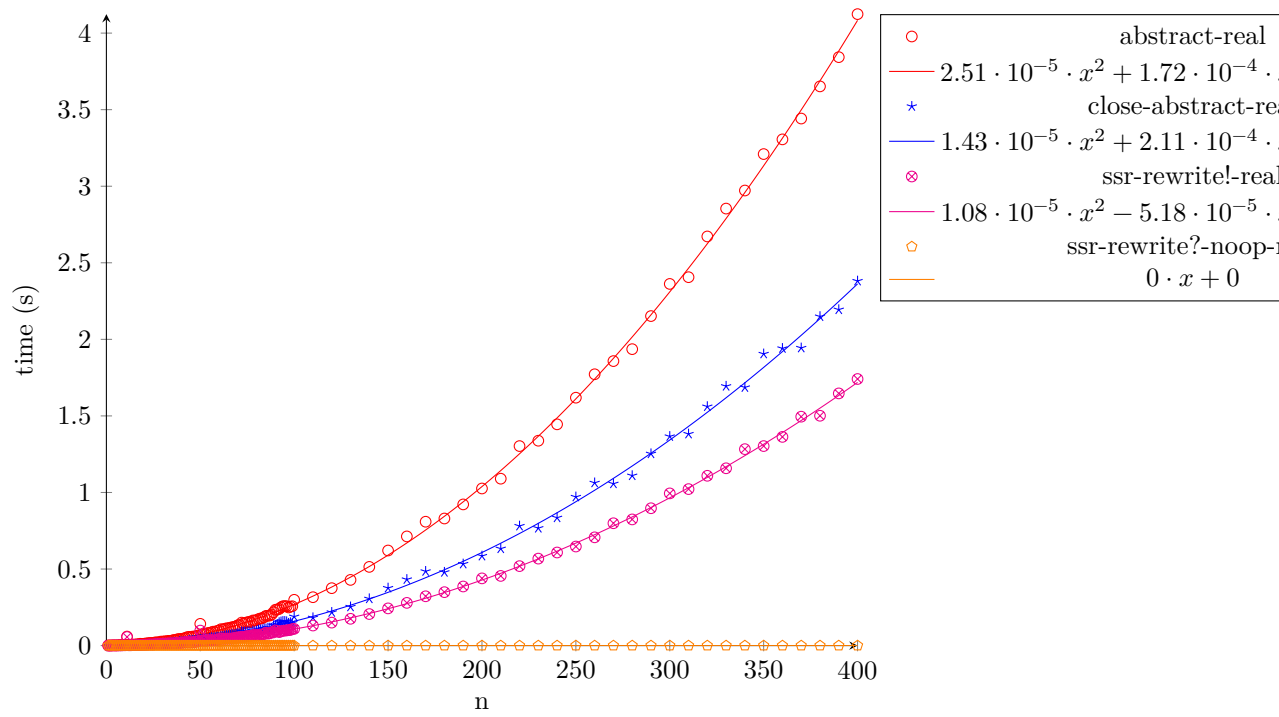


Figure 8: timing-rewrite-repeated-app-ssrrewrite

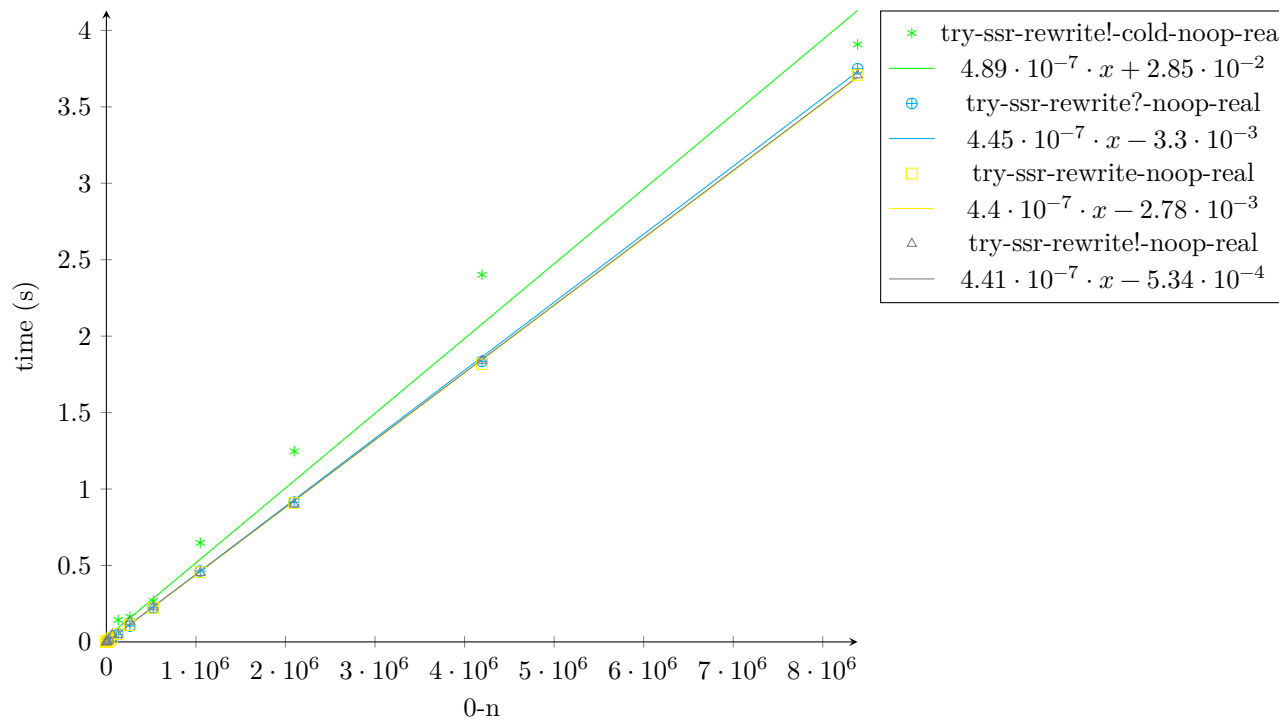


Figure 9: timing-rewrite-repeated-app-ssrrewrite-noop param-1-lgn 1

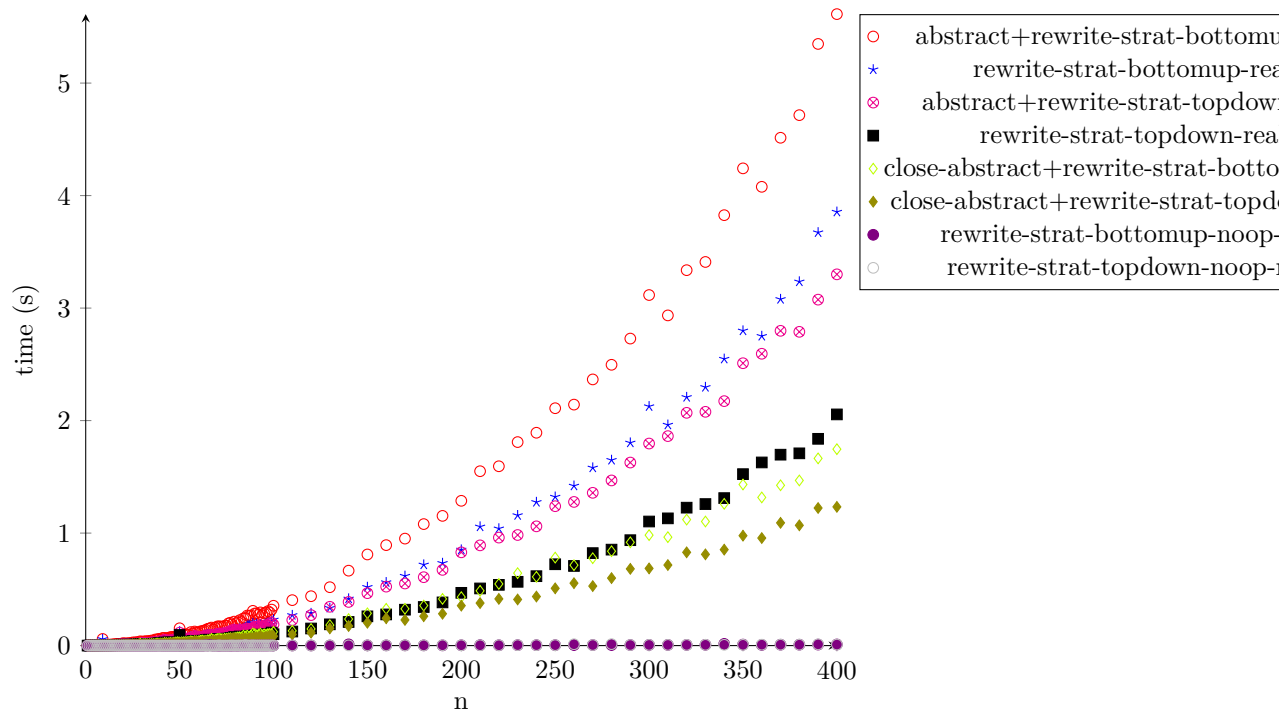


Figure 10: timing-rewrite-repeated-app-rewrite-strat

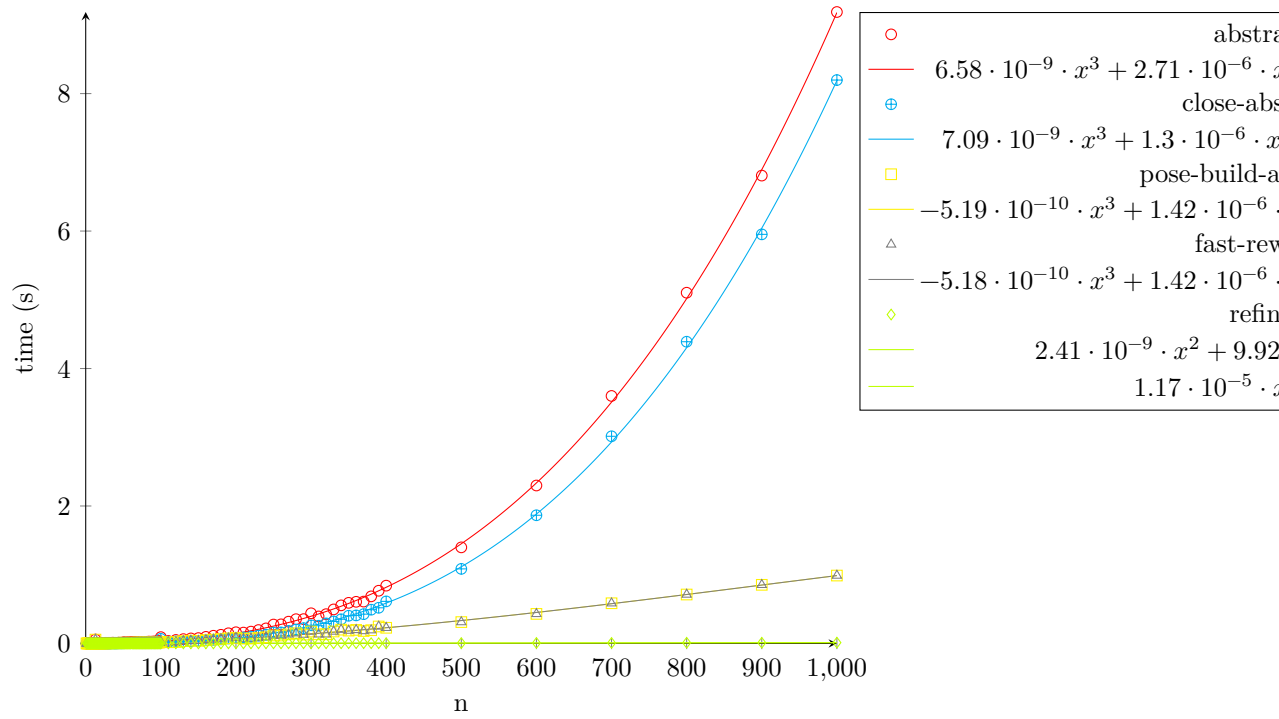


Figure 11: timing-rewrite-repeated-app-fast-rewrite

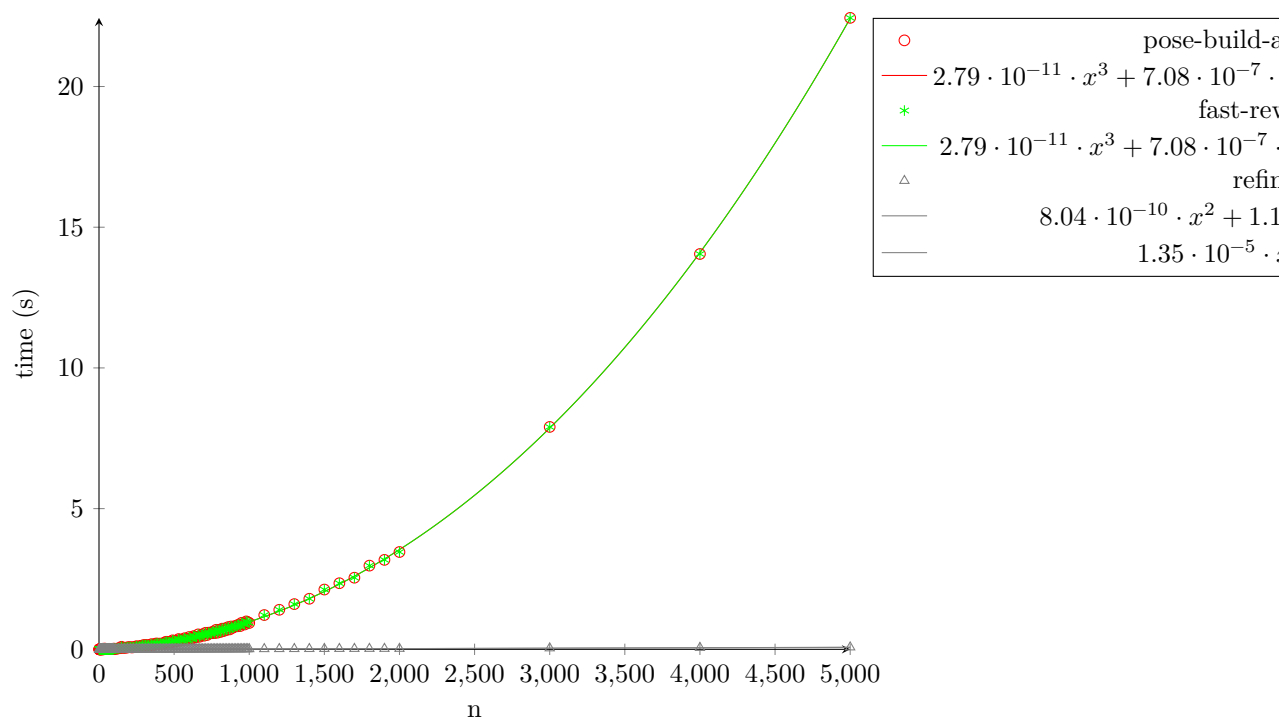
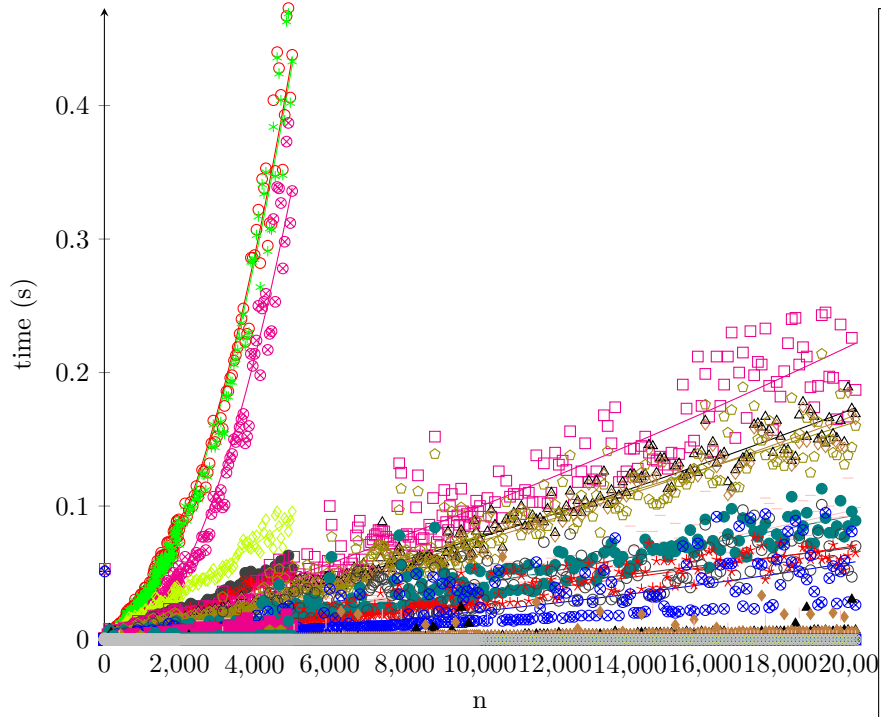


Figure 12: timing-rewrite-repeated-app-fast-rewrite-no-abstract



○	reif-for-beta-Param
—	$1.55 \cdot 10^{-8} \cdot x^2 + 9$
*	norm-reif-for-beta-Param
—	$1.55 \cdot 10^{-8} \cdot x^2 + 8$
⊗	eval-lazy-for-beta-Param
—	$1.51 \cdot 10^{-8} \cdot x^2 - 8$
△	cbv-for-beta-Param
—	$7.99 \cdot 10^{-11} \cdot x^2 + 1$
◇	actual-reif-for-beta-Param
—	$4.13 \cdot 10^{-10} \cdot x^2 + 1$
○	norm-reif-for-beta-Param
—	$2.44 \cdot 10^{-10} \cdot x^2 + 9$
●	reif-for-beta-Param
—	$3.01 \cdot 10^{-10} \cdot x^2 + 9$
*	actual-reif-for-beta-Param
—	$2.33 \cdot 10^{-10} \cdot x^2 + 8$
⊕	lazy-beta-iota-for-beta-Param
—	$6.5 \cdot 10^{-11} \cdot x^2 + 7$
□	reif-for-Parametric
—	$1.11 \cdot 10^{-10} \cdot x^2 + 8$
△	reif-for-Parametric
—	$1.02 \cdot 10^{-10} \cdot x^2 + 6$
◇	norm-reif-for-Parametric
—	$1.02 \cdot 10^{-10} \cdot x^2 + 6$
◇	norm-reif-for-Parametric
—	$3.51 \cdot 10^{-11} \cdot x^2 + 7$
—	actual-reif-for-Parametric
—	$7.38 \cdot 10^{-11} \cdot x^2 + 5$
●	actual-reif-for-Parametric
—	$4.46 \cdot 10^{-11} \cdot x^2 + 3$
○	eval-lazy-for-Parametric
—	$-9.85 \cdot 10^{-12} \cdot x^2 + 2$
*	eval-lazy-for-Parametric
—	$2.86 \cdot 10^{-11} \cdot x^2 + 2$
⊗	lazy-beta-iota-for-Parametric
—	$7.83 \cdot 10^{-11} \cdot x^2 + 1$
■	cbv-for-beta-Parametric
—	$9.33 \cdot 10^{-11} \cdot x^2 + 2$
▲	cbv-for-Parametric
—	$1.03 \cdot 10^{-11} \cdot x^2 + 2$
◆	cbv-for-Parametric
—	$5.71 \cdot 10^{-12} \cdot x^2 + 3$
◆	lazy-beta-iota-for-beta-Parametric
—	$1.46 \cdot 10^{-10} \cdot x^2 - 1$
—	lazy-beta-iota-for-Parametric
—	$4.05 \cdot 10^{-12} \cdot x^2 + 1$
●	eval-lazy-for-beta-Parametric
—	$8.57 \cdot 10^{-11} \cdot x^2 + 3$
*	transitivity-(Denote-rv)-for-beta-Parametric
—	$8.57 \cdot 10^{-11} \cdot x^2 + 3$
—	transitivity-(Denote-rv)-for-beta-Parametric

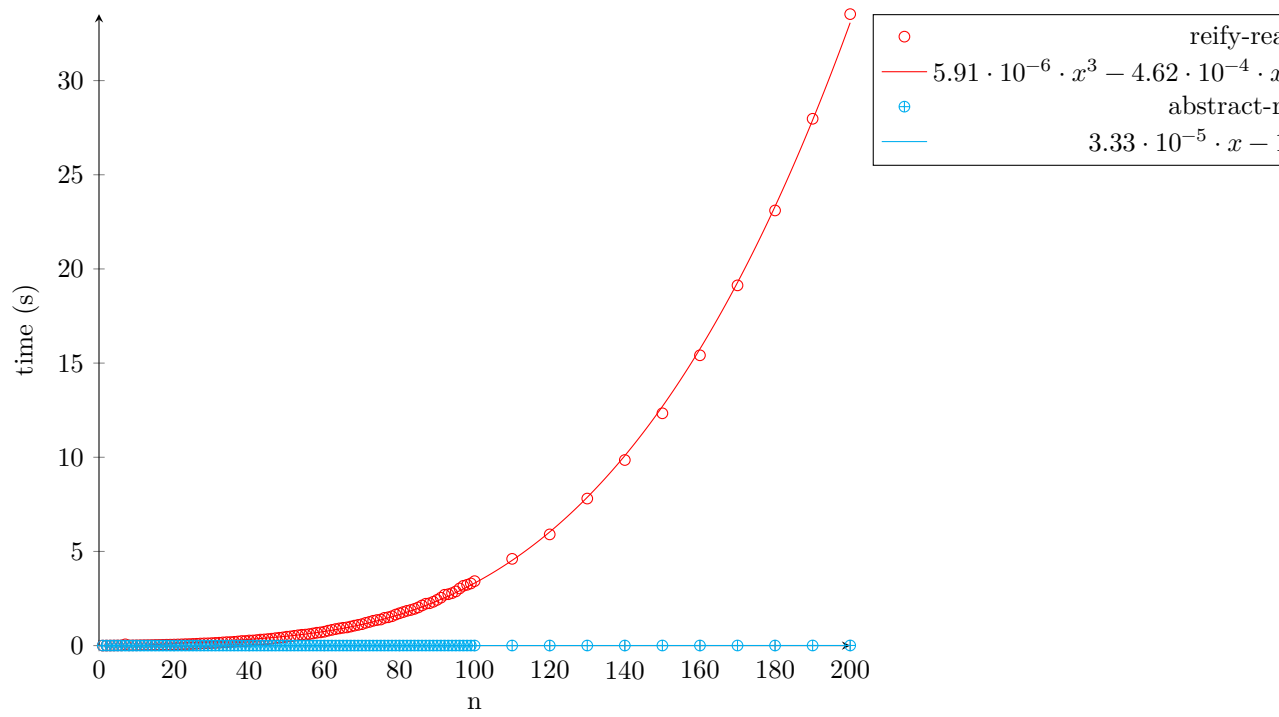


Figure 14: timing-typeclass-reification-let-in-HOAS

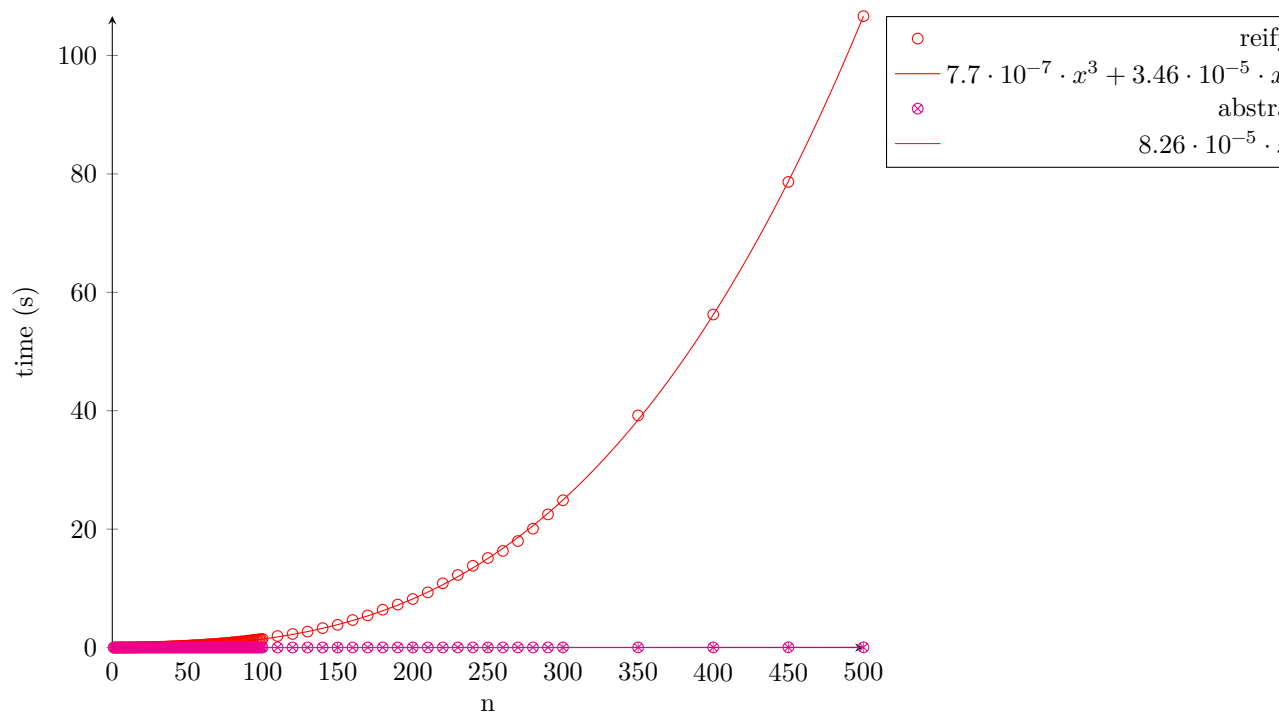


Figure 15: timing-typeclass-reification-let-in-PHOAS

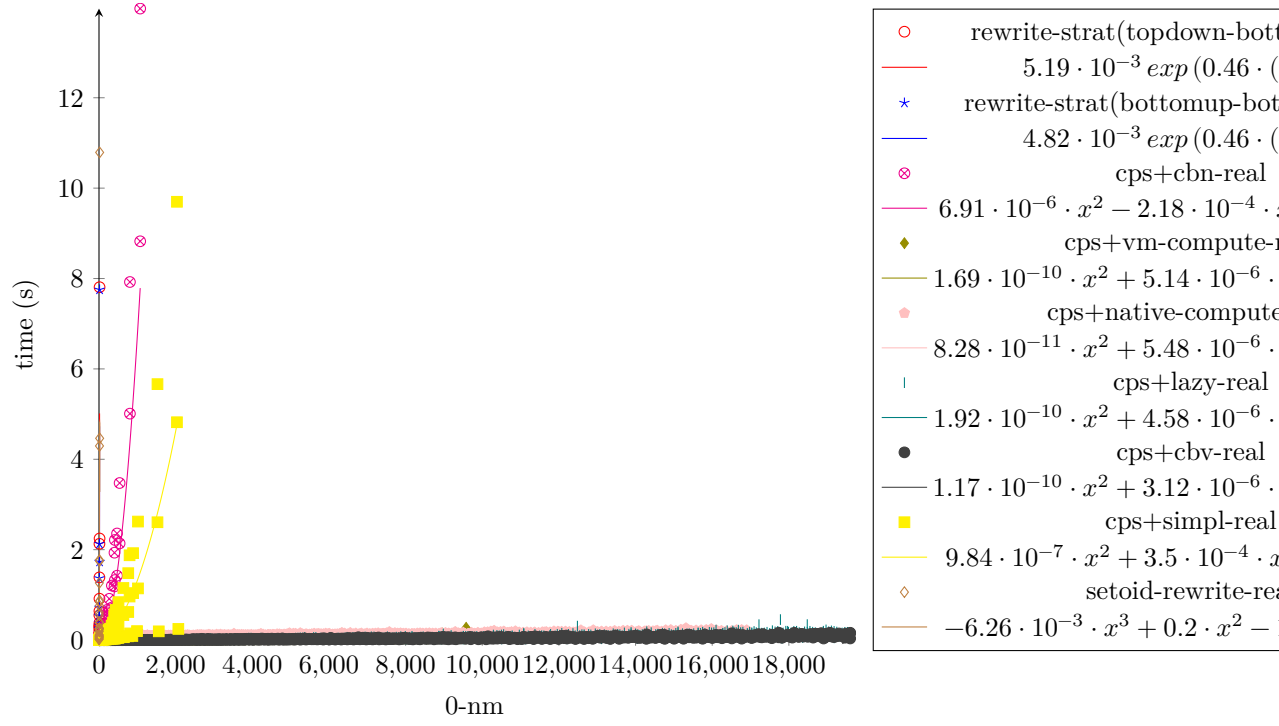


Figure 16: timing-rewrite-lift-lets-map param-1-n 1, param-2-m 1

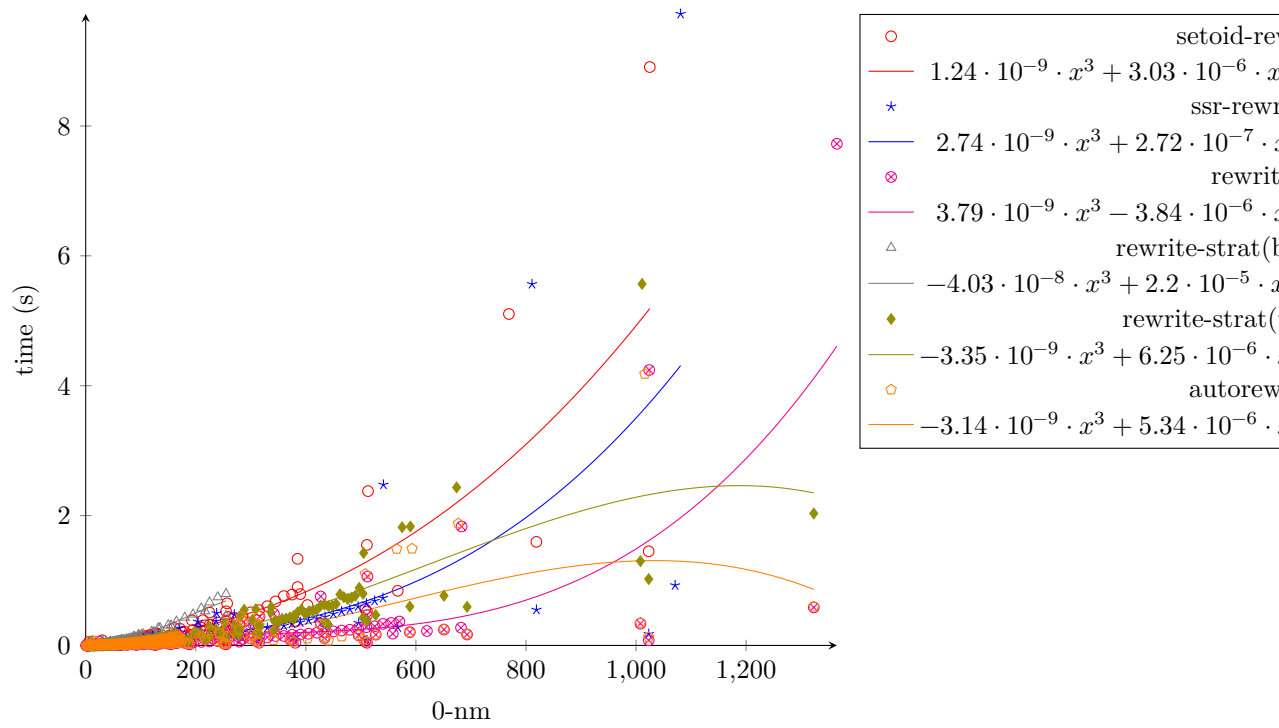


Figure 17: timing-rewrite-plus-0-tree param-1-n 0, param-2-m 1, param-3-input-size 5, param-4-output-size 3, param-5-num-rewrites 1

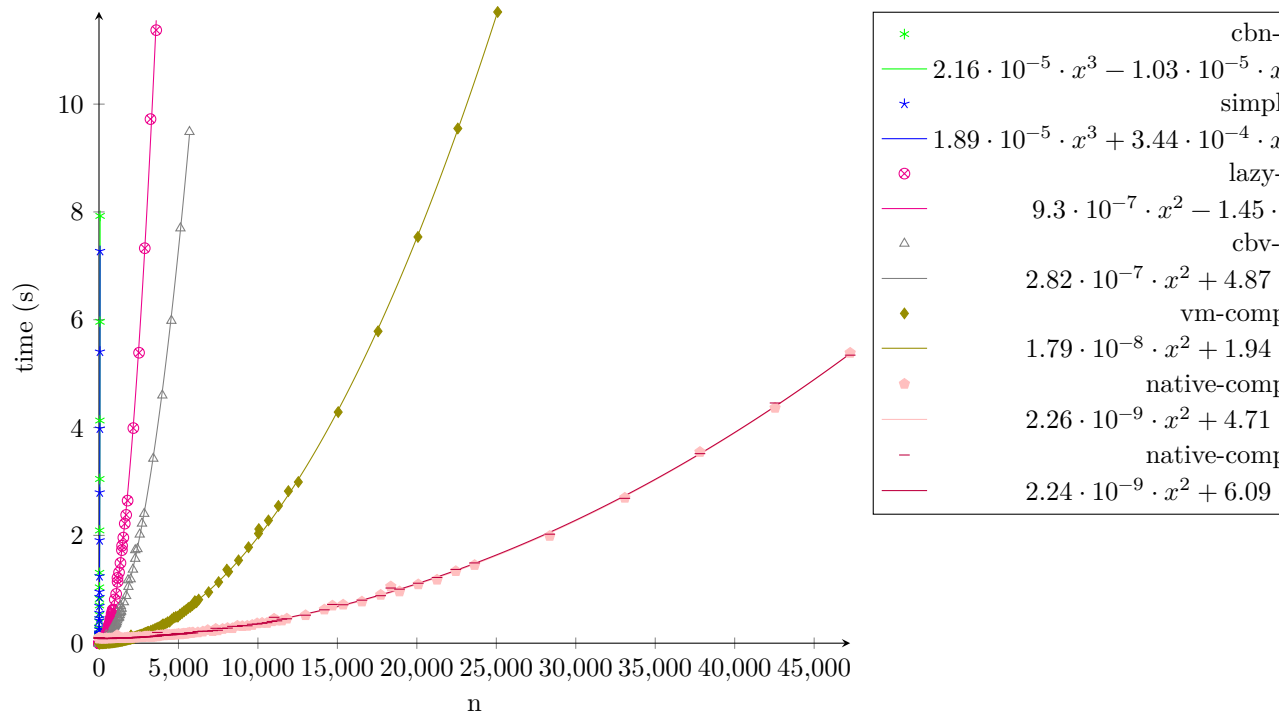


Figure 18: timing-sieve-of-eratosthenes

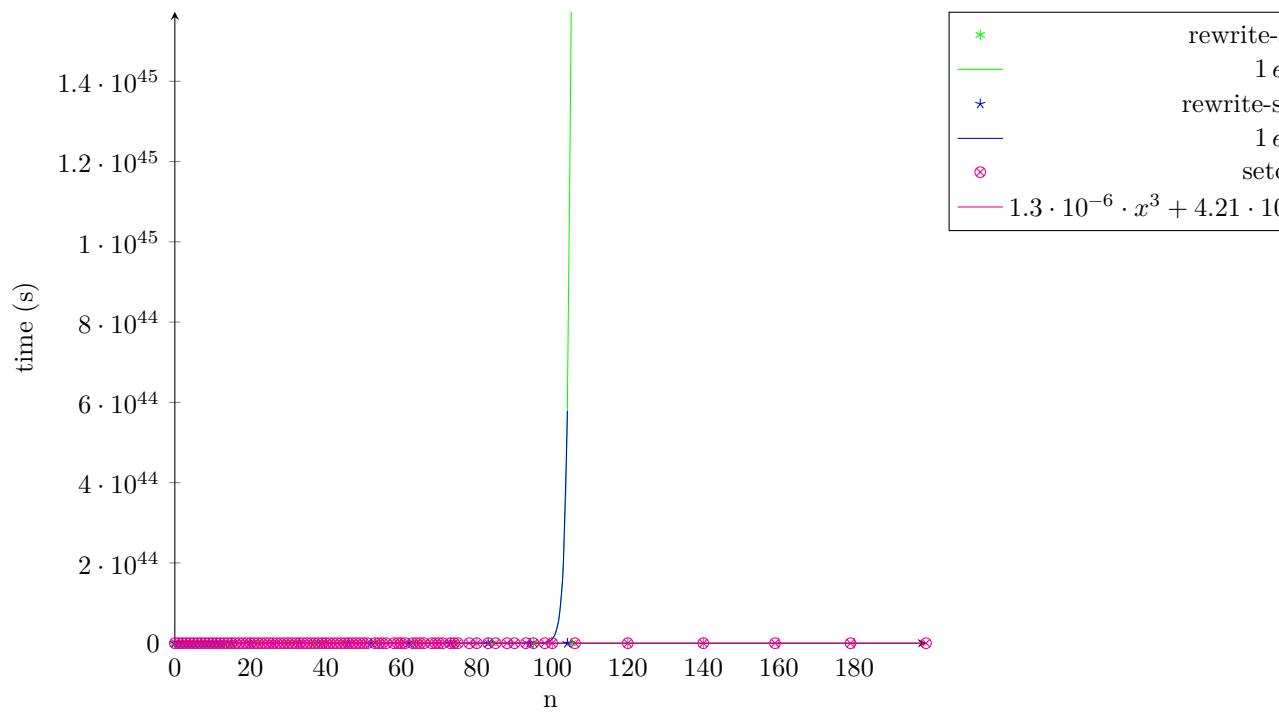


Figure 19: timing-rewrite-under-lets-plus-0

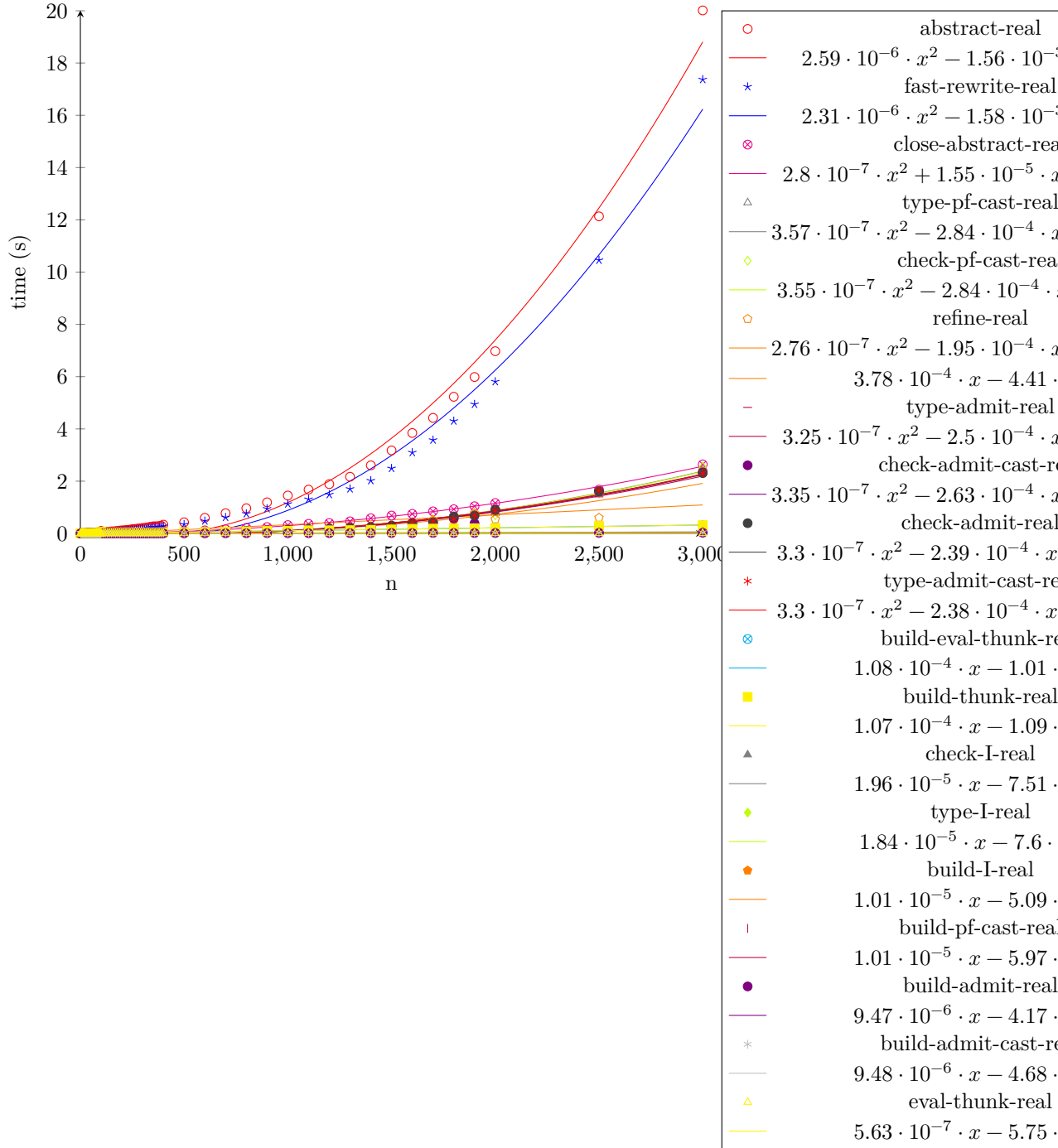


Figure 20: timing-rewrite-repeated-app-fast-rewrite-ltac2