

Figure 1: timing-pattern

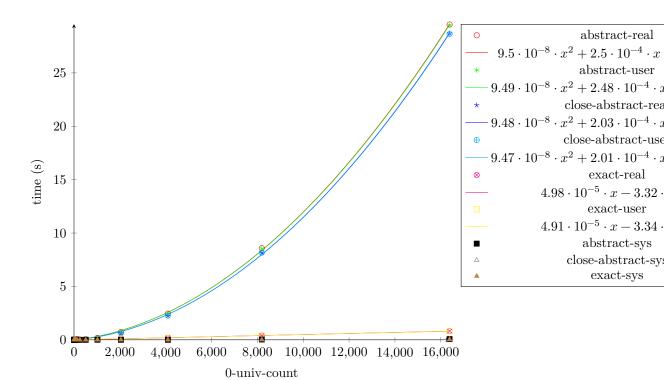


Figure 2: timing-n-polymorphic-universes param-1-n 0

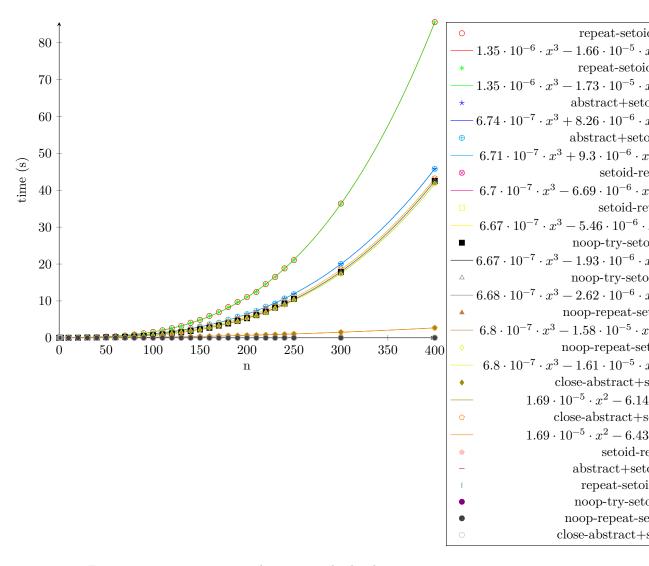


Figure 3: timing-repeat-setoid-rewrite-under-binders

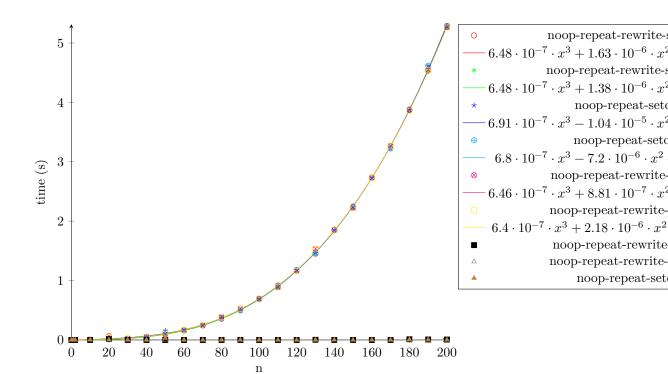


Figure 4: timing-repeat-setoid-rewrite-under-binders-noop

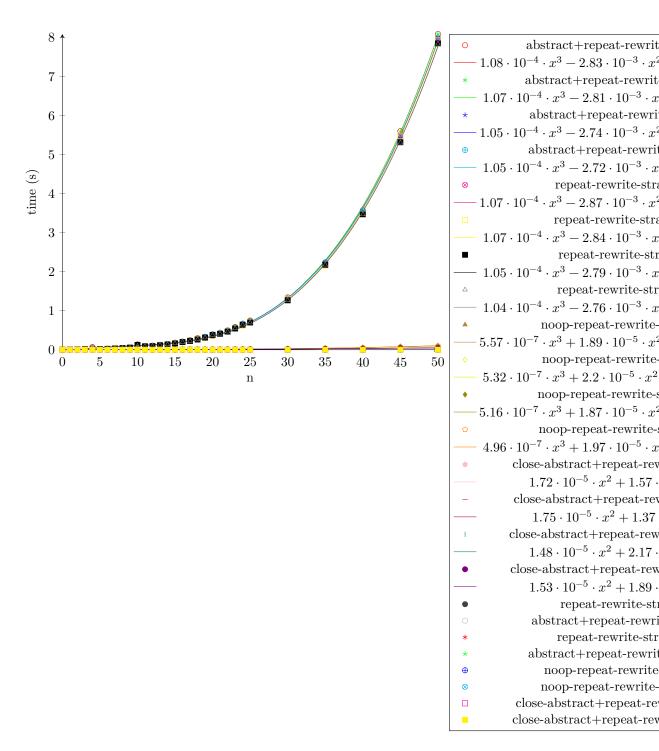


Figure 5: timing-rewrite-strat-under-binders

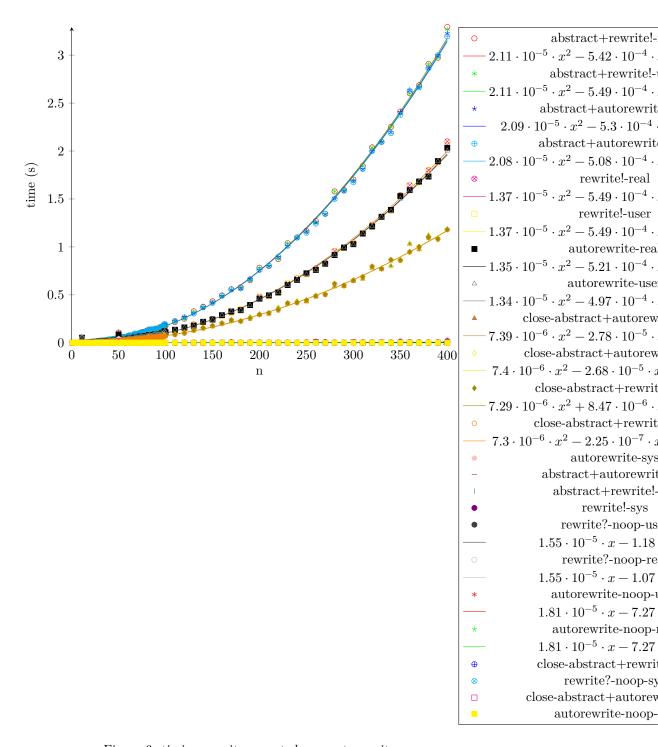


Figure 6: timing-rewrite-repeated-app-autorewrite

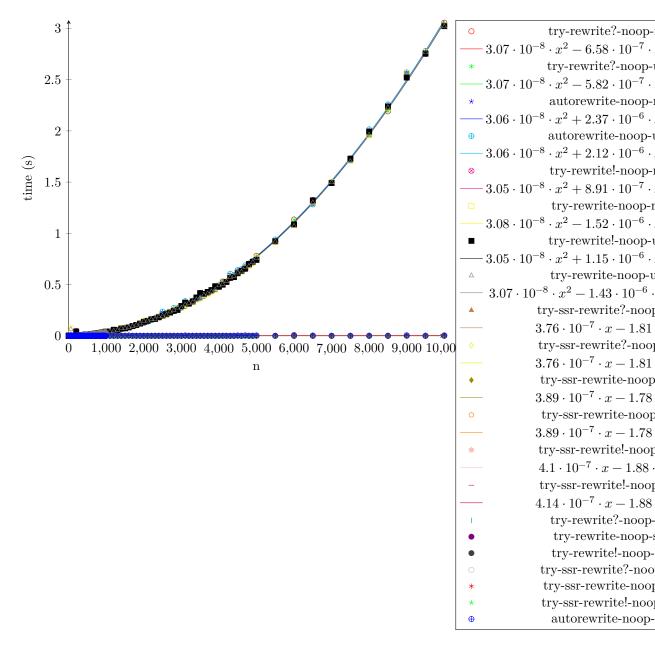


Figure 7: timing-rewrite-repeated-app-autorewrite-noop

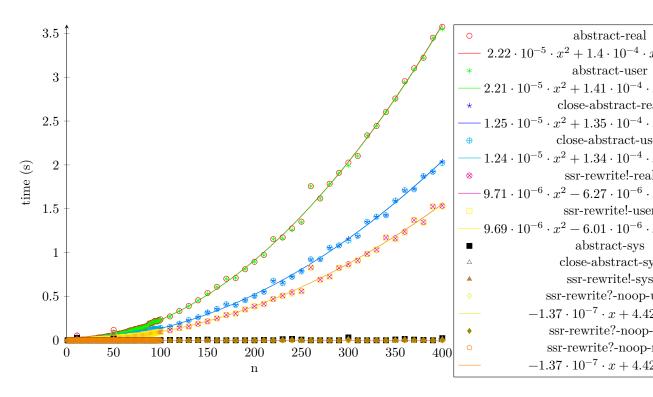


Figure 8: timing-rewrite-repeated-app-ssrrewrite

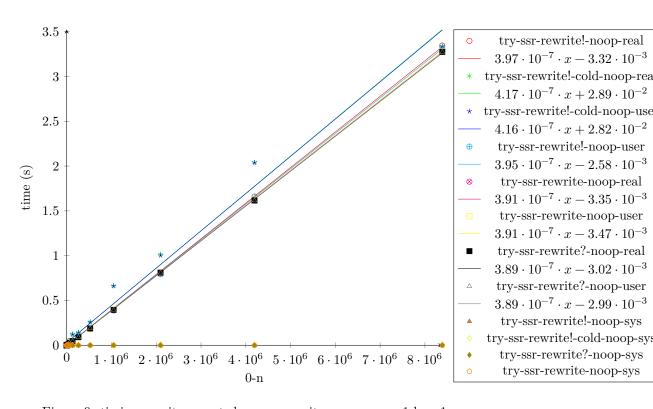


Figure 9: timing-rewrite-repeated-app-ssrrewrite-noop param-1-lgn $\ 1$

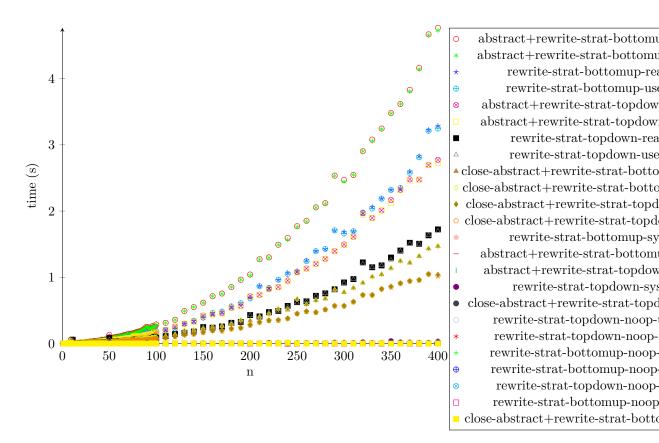
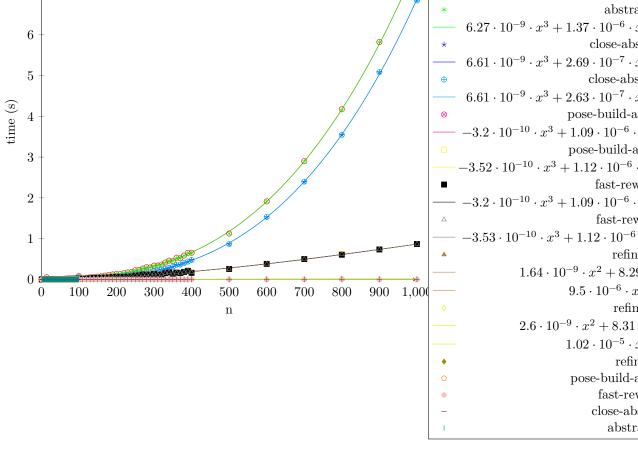


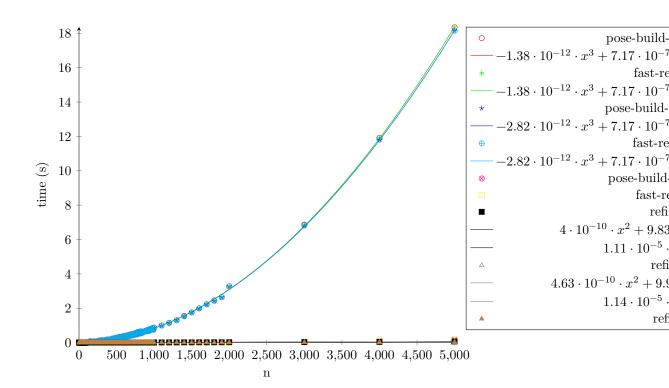
Figure 10: timing-rewrite-repeated-app-rewrite-strat



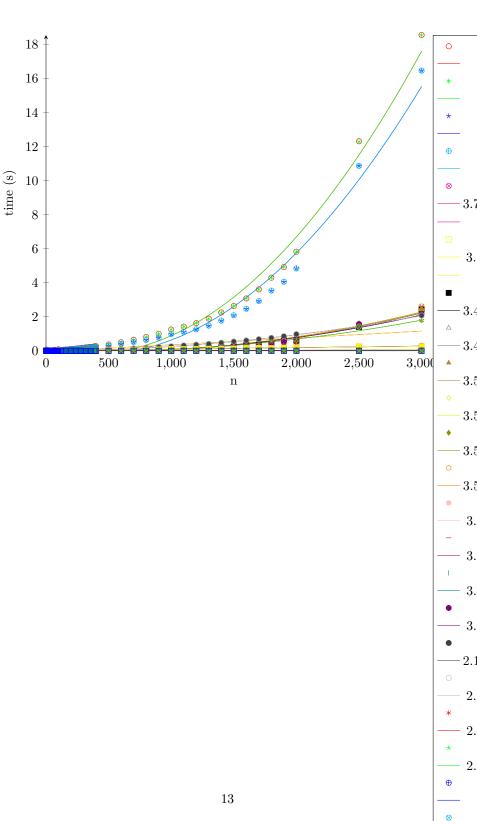
abstra

 $6.23 \cdot 10^{-9} \cdot x^3 + 1.42 \cdot 10^{-6} \cdot x^3$

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



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



 $2.55 \cdot 10^{-6} \cdot x^2 - 1.84 \cdot 10^{-8}$ $2.55 \cdot 10^{-6} \cdot x^2 - 1.84 \cdot 10^{-6}$ $2.33 \cdot 10^{-6} \cdot x^2 - 1.87 \cdot 10^{-6}$ $2.33 \cdot 10^{-6} \cdot x^2 - 1.87 \cdot 10^{-6}$ $3.71 \cdot 10^{-7} \cdot x^2 - 3.68 \cdot 10^{-4} \cdot x^2$ $3.7 \cdot 10^{-7} \cdot x^2 - 3.67 \cdot 10^{-4} \cdot x$ $3.49 \cdot 10^{-7} \cdot x^2 - 3.16 \cdot 10^{-4} \cdot x^2$ $3.48 \cdot 10^{-7} \cdot x^2 - 3.16 \cdot 10^{-4} \cdot x^2$ $3.55 \cdot 10^{-7} \cdot x^2 - 3.21 \cdot 10^{-4} \cdot x^2$ $3.55 \cdot 10^{-7} \cdot x^2 - 3.21 \cdot 10^{-4} \cdot x^2$ $3.56 \cdot 10^{-7} \cdot x^2 - 3.16 \cdot 10^{-4} \cdot x^2$ $3.56 \cdot 10^{-7} \cdot x^2 - 3.16 \cdot 10^{-4} \cdot x^2$ $3.2 \cdot 10^{-7} \cdot x^2 - 2.66 \cdot 10^{-4} \cdot x$ $3.2 \cdot 10^{-7} \cdot x^2 - 2.66 \cdot 10^{-4} \cdot x$ $3.18 \cdot 10^{-7} \cdot x^2 - 2.6 \cdot 10^{-4} \cdot x$ $3.18 \cdot 10^{-7} \cdot x^2 - 2.6 \cdot 10^{-4} \cdot x$ $2.17 \cdot 10^{-7} \cdot x^2 + 3.62 \cdot 10^{-5} \cdot x^2$ $2.17 \cdot 10^{-7} \cdot x^2 + 3.6 \cdot 10^{-5} \cdot x$ $2.6 \cdot 10^{-7} \cdot x^2 - 1.84 \cdot 10^{-4} \cdot x$ $2.6 \cdot 10^{-7} \cdot x^2 - 1.84 \cdot 10^{-4} \cdot x$

abstract-real

abstract-user

fast-rewrite-real

fast-rewrite-user

refine-real

 $4.02 \cdot 10^{-4} \cdot x - 5.12 \cdot$ refine-user

 $4.02 \cdot 10^{-4} \cdot x - 5.12 \cdot$

type-admit-user

type-admit-real

check-admit-cast-u

check-admit-cast-r

check-pf-cast-use

check-pf-cast-rea

type-admit-cast-us

type-admit-cast-re

type-pf-cast-real

type-pf-cast-user

close-abstract-rea

close-abstract-use

check-admit-user

check-admit-real

build-eval-thunk-re

 $9.25 \cdot 10^{-5} \cdot x - 4.66 \cdot$ build-thunk-real $9.18 \cdot 10^{-5} \cdot x - 5.61 \cdot$ build-eval-thunk-u $9.21 \cdot 10^{-5} \cdot x - 5.38 \cdot$ build-thunk-user $9.14\cdot 10^{-5}\cdot x - 6.3\cdot$