

Figure 1: timing-pattern

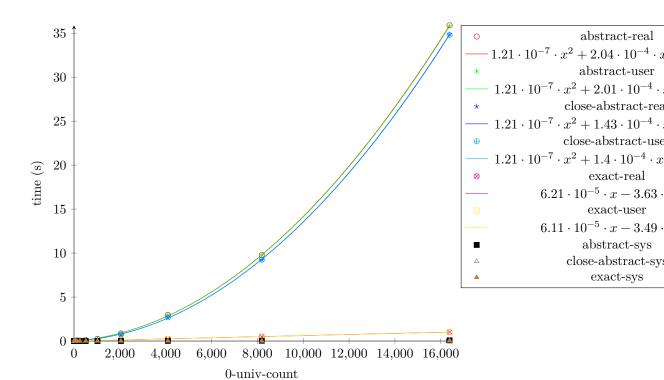


Figure 2: timing-n-polymorphic-universes param-1-n 0

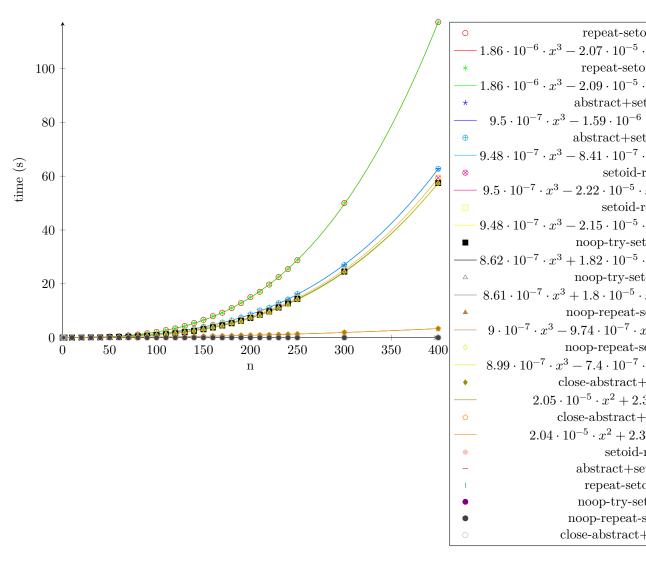


Figure 3: timing-repeat-setoid-rewrite-under-binders

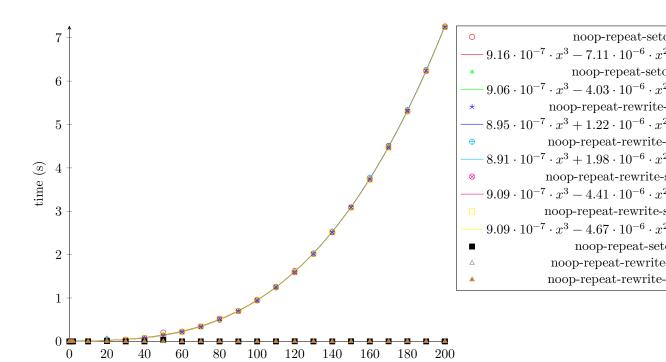


Figure 4: timing-repeat-setoid-rewrite-under-binders-noop

n

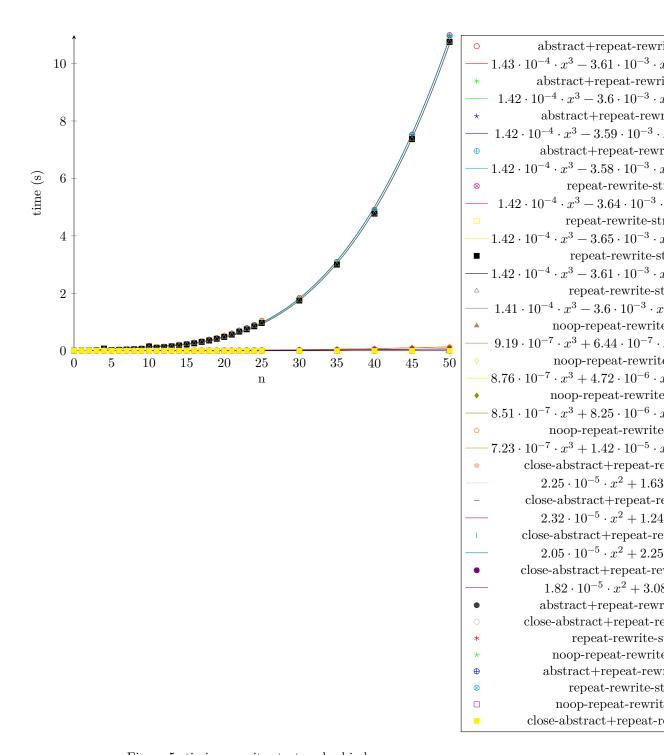
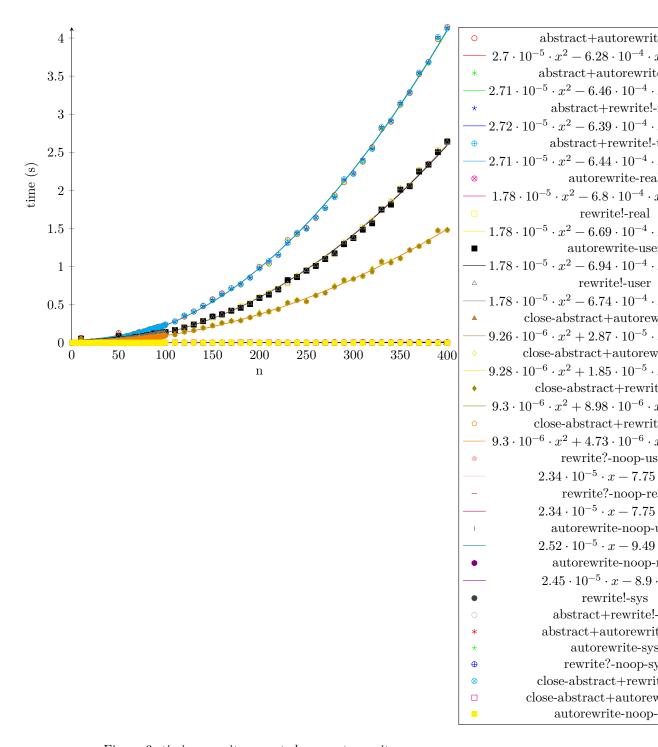


Figure 5: timing-rewrite-strat-under-binders



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

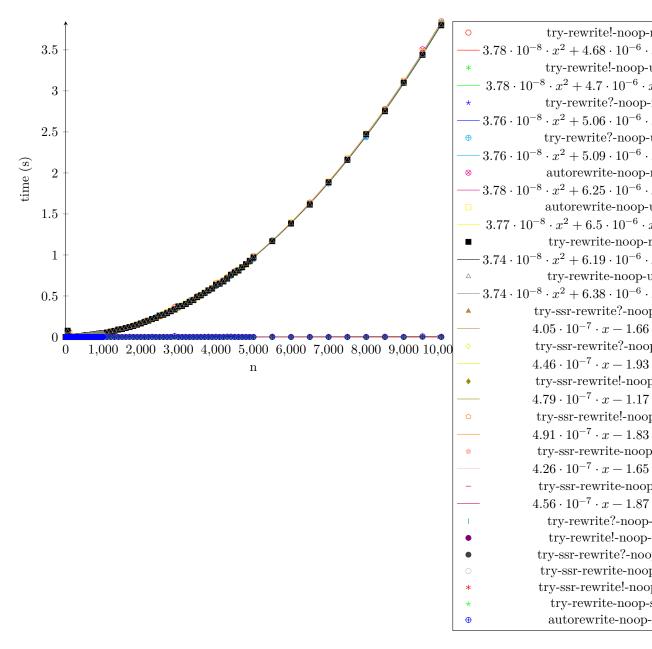
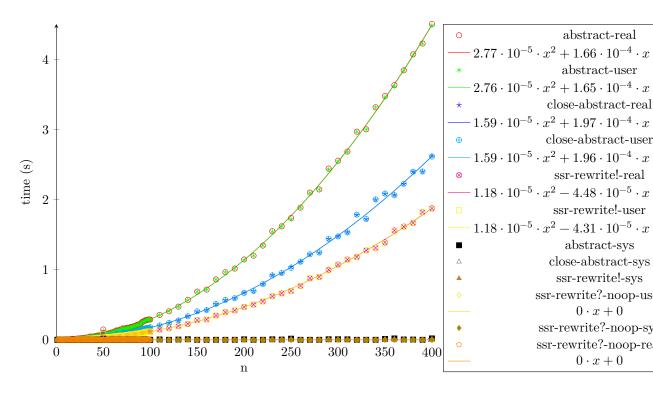


Figure 7: timing-rewrite-repeated-app-autorewrite-noop



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

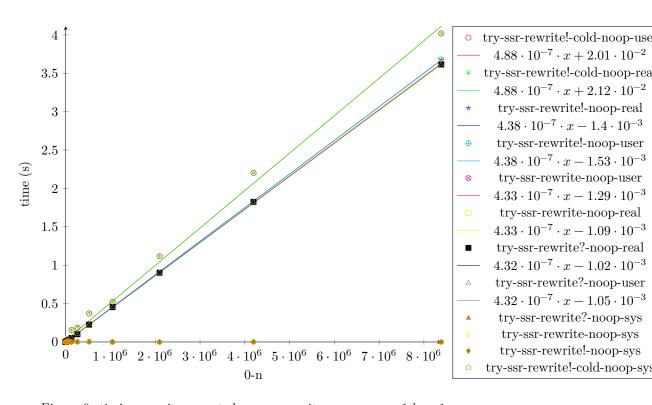


Figure 9: timing-rewrite-repeated-app-ssrrewrite-noop param-1-lgn $\ 1$

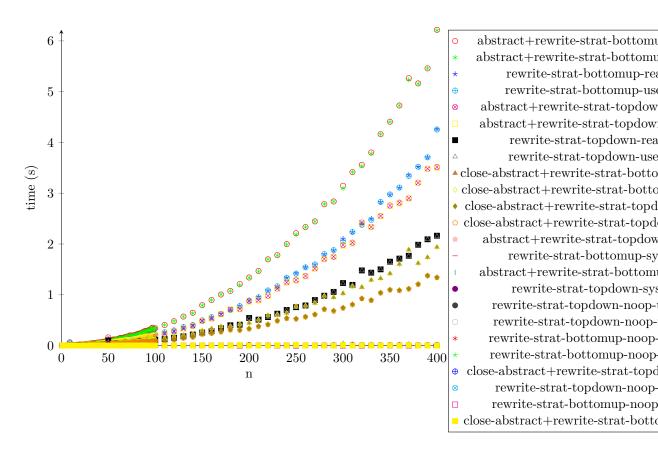


Figure 10: timing-rewrite-repeated-app-rewrite-strat

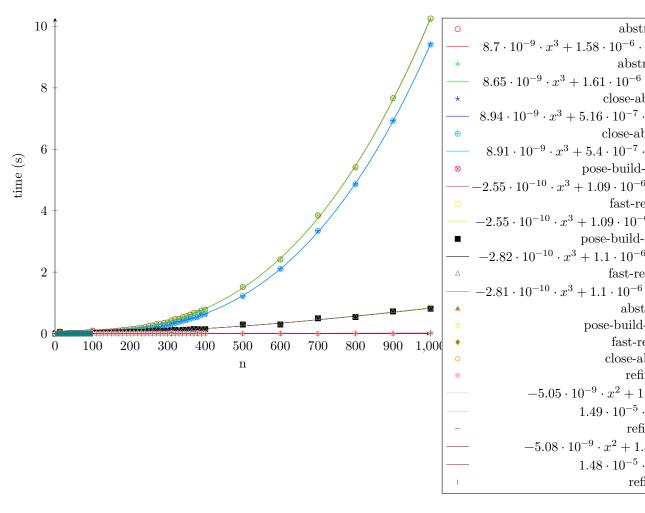
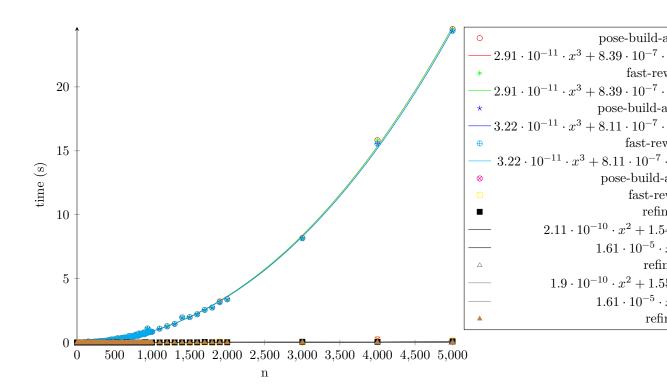
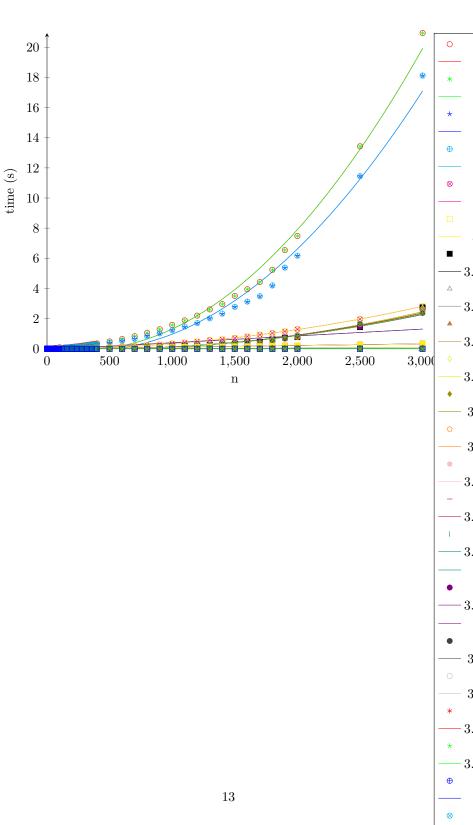


Figure 11: timing-rewrite-repeated-app-fast-rewrite



 $\label{prop:figure 12:timing-rewrite-repeated-app-fast-rewrite-no-abstract} Figure~12:~timing-rewrite-repeated-app-fast-rewrite-no-abstract$



 $2.72 \cdot 10^{-6} \cdot x^2 - 1.56 \cdot 10^{-6}$ $2.42 \cdot 10^{-6} \cdot x^2 - 1.6 \cdot 10^{-3}$ $2.42 \cdot 10^{-6} \cdot x^2 - 1.6 \cdot 10^{-3}$ $3 \cdot 10^{-7} \cdot x^2 + 3.8 \cdot 10^{-5} \cdot x$ $3 \cdot 10^{-7} \cdot x^2 + 3.95 \cdot 10^{-5} \cdot x$ $3.67 \cdot 10^{-7} \cdot x^2 - 2.89 \cdot 10^{-4} \cdot x^2$ $3.67 \cdot 10^{-7} \cdot x^2 - 2.89 \cdot 10^{-4} \cdot x^2$ $3.67 \cdot 10^{-7} \cdot x^2 - 2.93 \cdot 10^{-4} \cdot x^2$ $3.67 \cdot 10^{-7} \cdot x^2 - 2.94 \cdot 10^{-4} \cdot x^2$ $3.5 \cdot 10^{-7} \cdot x^2 - 2.65 \cdot 10^{-4} \cdot x$ $3.5 \cdot 10^{-7} \cdot x^2 - 2.65 \cdot 10^{-4} \cdot x$ $3.39 \cdot 10^{-7} \cdot x^2 - 2.34 \cdot 10^{-4} \cdot x^2$ $3.39 \cdot 10^{-7} \cdot x^2 - 2.34 \cdot 10^{-4} \cdot x^2$ $3.21 \cdot 10^{-7} \cdot x^2 - 2.14 \cdot 10^{-4} \cdot x^2$ $3.21 \cdot 10^{-7} \cdot x^2 - 2.14 \cdot 10^{-4} \cdot x^2$ $3.33 \cdot 10^{-7} \cdot x^2 - 2.4 \cdot 10^{-4} \cdot x$ $3.32\cdot 10^{-7}\cdot x^2 - 2.4\cdot 10^{-4}\cdot x$ $3.33 \cdot 10^{-7} \cdot x^2 - 2.36 \cdot 10^{-4} \cdot x^2$ $3.32 \cdot 10^{-7} \cdot x^2 - 2.36 \cdot 10^{-4} \cdot x^2$

abstract-real

abstract-user

fast-rewrite-real

fast-rewrite-user

close-abstract-use

close-abstract-rea

check-admit-cast-u

check-admit-cast-r

type-pf-cast-real

type-pf-cast-user

check-pf-cast-rea

check-pf-cast-use

check-admit-real

check-admit-user

refine-user

 $4.54 \cdot 10^{-4} \cdot x - 5.37$ refine-real

 $4.54 \cdot 10^{-4} \cdot x - 5.37 \cdot$ type-admit-cast-us

type-admit-cast-re

type-admit-user

type-admit-real

build-eval-thunk-ua

 $1.11 \cdot 10^{-4} \cdot x - 8.09$ build-eval-thunk-re $1.11 \cdot 10^{-4} \cdot x - 6.03 \cdot$ build-thunk-user $1.1 \cdot 10^{-4} \cdot x - 8.72 \cdot$ build-thunk-real $1.1 \cdot 10^{-4} \cdot x - 6.61 \cdot$ shool. I ...

 $2.72 \cdot 10^{-6} \cdot x^2 - 1.56 \cdot 10^{-6}$