

Figure 1: timing-pattern

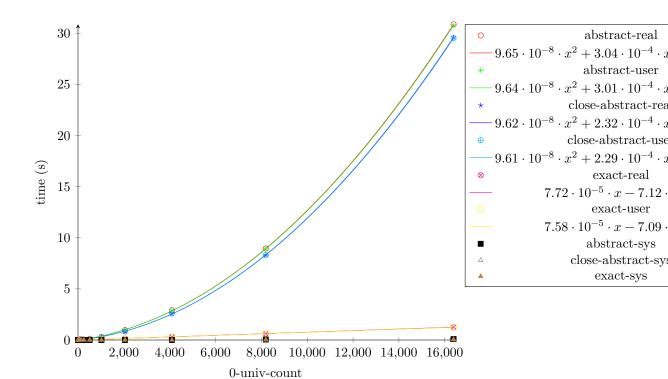


Figure 2: timing-n-polymorphic-universes param-1-n 0

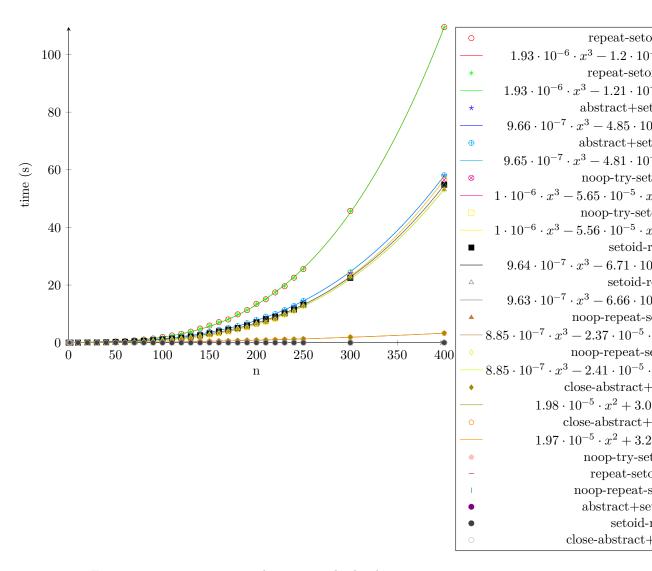


Figure 3: timing-repeat-setoid-rewrite-under-binders

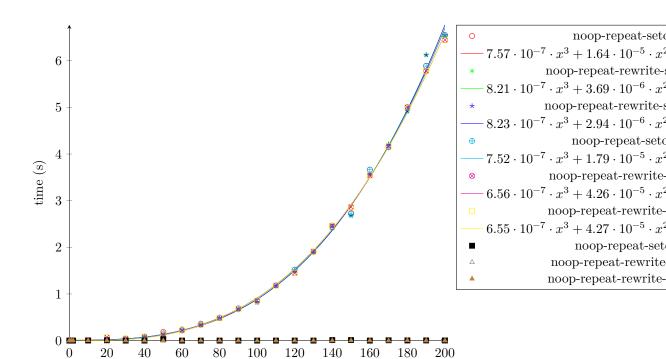


Figure 4: timing-repeat-setoid-rewrite-under-binders-noop

n

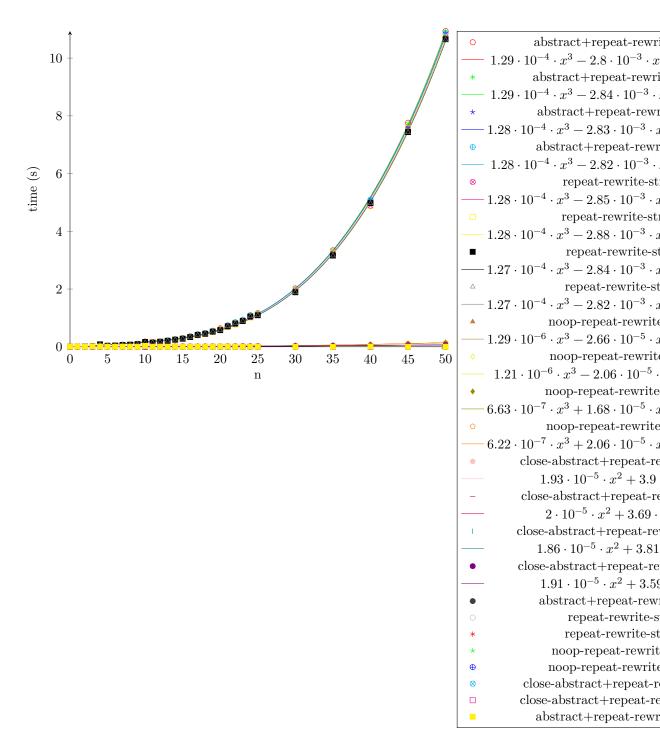


Figure 5: timing-rewrite-strat-under-binders

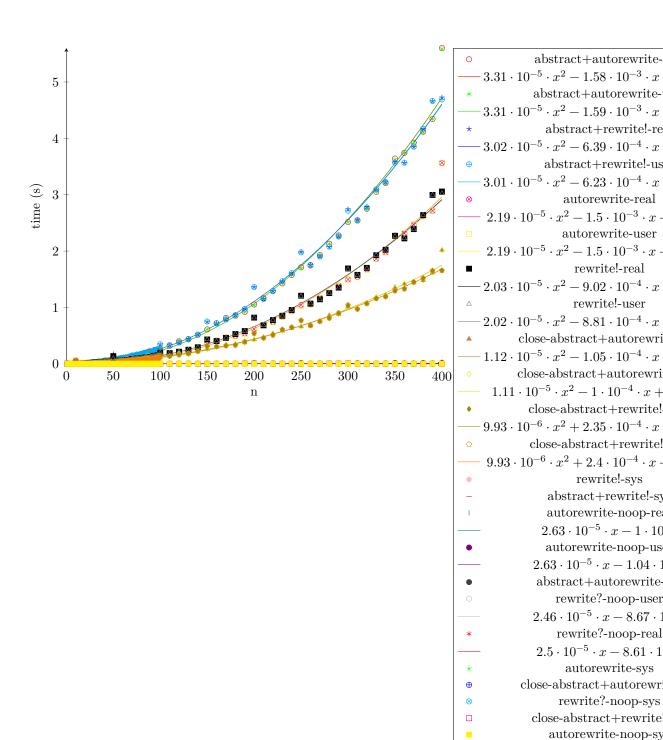


Figure 6: timing-rewrite-repeated-app-autorewrite

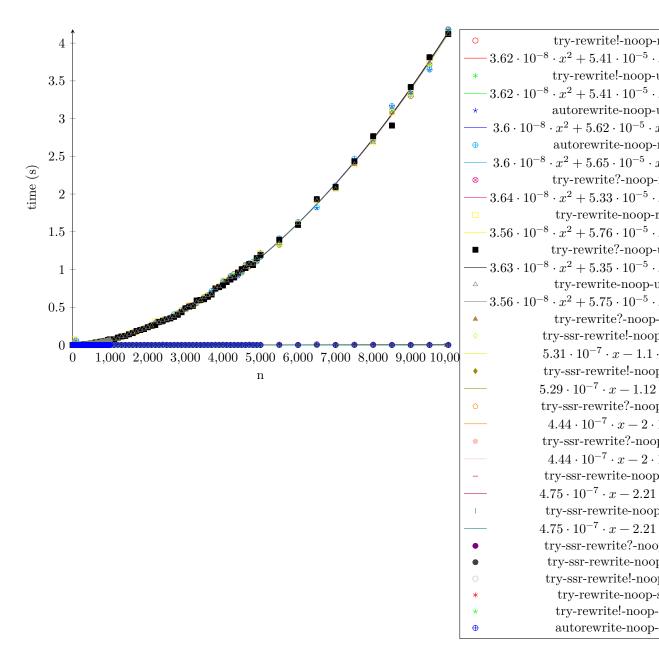
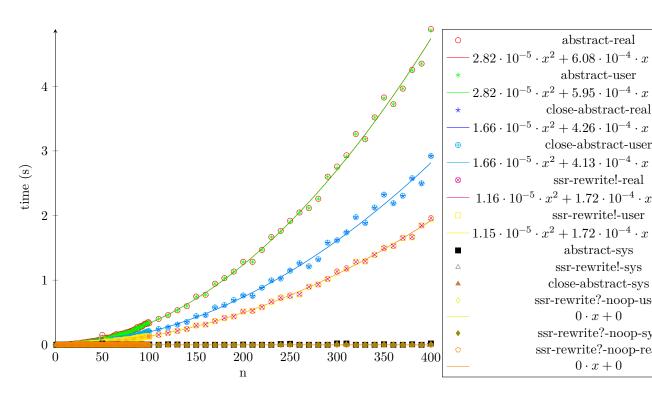


Figure 7: timing-rewrite-repeated-app-autorewrite-noop



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

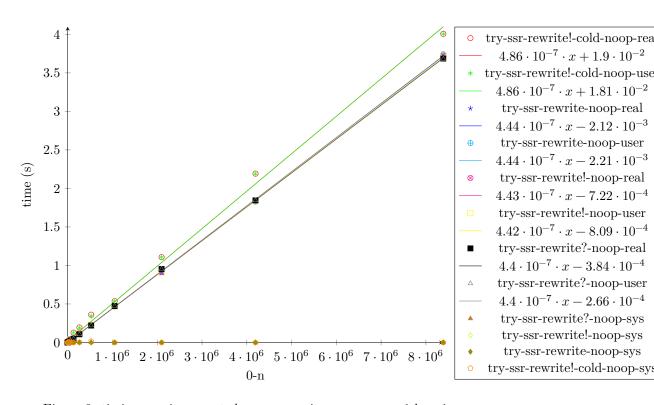


Figure 9: timing-rewrite-repeated-app-ssrrewrite-noop param-1-lgn $\,1\,$

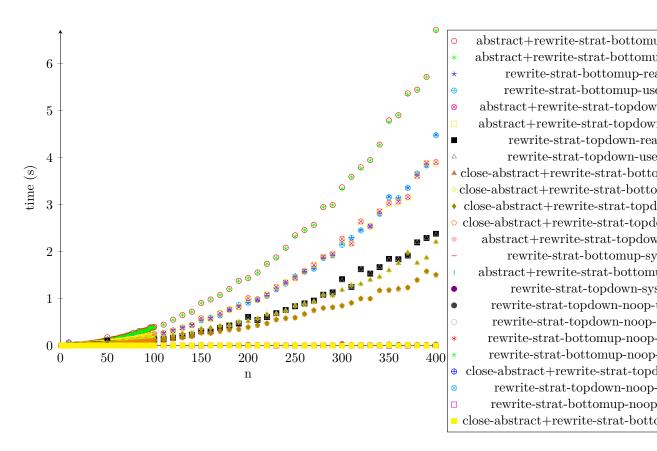


Figure 10: timing-rewrite-repeated-app-rewrite-strat

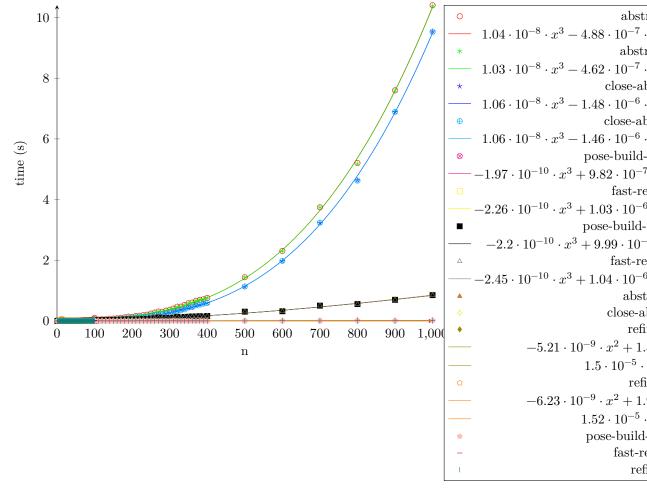
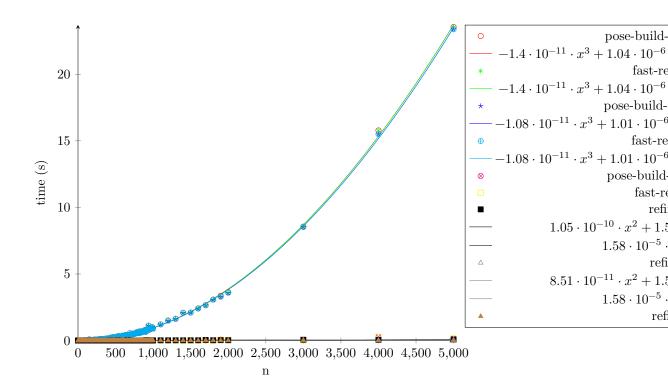
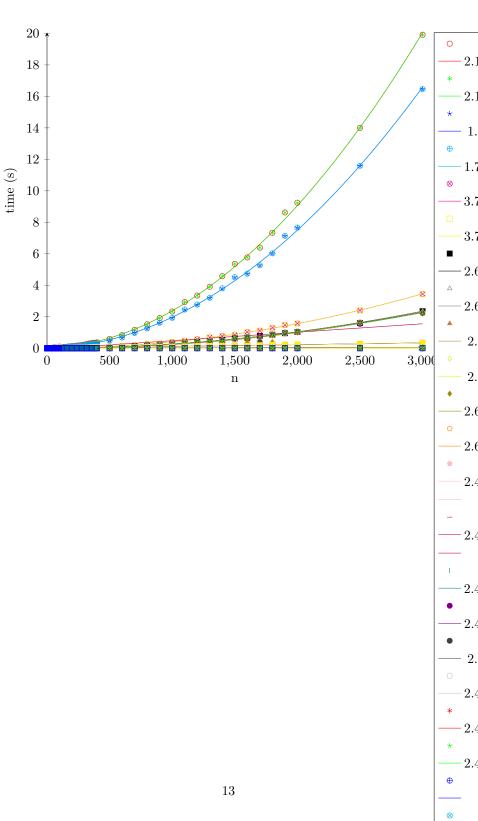


Figure 11: timing-rewrite-repeated-app-fast-rewrite



 ${\bf Figure~12:~timing\text{-}rewrite\text{-}repeated\text{-}app\text{-}fast\text{-}rewrite\text{-}no\text{-}abstract}}$



 $2.15 \cdot 10^{-6} \cdot x^2 + 2.24 \cdot 10^{-4} \cdot x^2$ $2.15 \cdot 10^{-6} \cdot x^2 + 2.23 \cdot 10^{-4} \cdot x^2$ $1.78 \cdot 10^{-6} \cdot x^2 + 1.9 \cdot 10^{-4} \cdot x$ $1.78 \cdot 10^{-6} \cdot x^2 + 1.89 \cdot 10^{-4} \cdot x^2$ $3.74 \cdot 10^{-7} \cdot x^2 + 3.16 \cdot 10^{-5} \cdot x^2$ $3.74 \cdot 10^{-7} \cdot x^2 + 3.18 \cdot 10^{-5} \cdot x^2$ $2.62 \cdot 10^{-7} \cdot x^2 - 2.32 \cdot 10^{-6} \cdot x^2$ $2.62 \cdot 10^{-7} \cdot x^2 - 1.85 \cdot 10^{-6} \cdot x^2$ $2.63 \cdot 10^{-7} \cdot x^2 - 2.5 \cdot 10^{-5} \cdot x$ $2.64 \cdot 10^{-7} \cdot x^2 - 2.5 \cdot 10^{-5} \cdot x$ $2.69 \cdot 10^{-7} \cdot x^2 - 4.41 \cdot 10^{-5} \cdot x^2 - 4.41 \cdot 10^{-5} \cdot x^2 + 2.61 \cdot 10^{-5} \cdot x^2$ $2.69 \cdot 10^{-7} \cdot x^2 - 4.43 \cdot 10^{-5} \cdot x^2 + 2.43 \cdot 10^{-5} \cdot x^2$ $2.46 \cdot 10^{-7} \cdot x^2 + 2.63 \cdot 10^{-5} \cdot x^2$ $2.46 \cdot 10^{-7} \cdot x^2 + 2.63 \cdot 10^{-5} \cdot x^2$ $2.44 \cdot 10^{-7} \cdot x^2 + 2.78 \cdot 10^{-5} \cdot x^2$ $2.43 \cdot 10^{-7} \cdot x^2 + 2.82 \cdot 10^{-5} \cdot x^2$ $2.5 \cdot 10^{-7} \cdot x^2 + 5.34 \cdot 10^{-6} \cdot x$ $2.49 \cdot 10^{-7} \cdot x^2 + 5.42 \cdot 10^{-6} \cdot x^2$ $2.43 \cdot 10^{-7} \cdot x^2 + 2.88 \cdot 10^{-5} \cdot x^2$ $2.42 \cdot 10^{-7} \cdot x^2 + 2.98 \cdot 10^{-5} \cdot x^2 + 2.98 \cdot 10^{-5}$

abstract-real

abstract-user

fast-rewrite-real

fast-rewrite-user

close-abstract-rea

close-abstract-use

check-admit-user

check-admit-real

check-pf-cast-use

check-pf-cast-rea

type-admit-real

type-admit-user

refine-real

 $5.37 \cdot 10^{-4} \cdot x - 5.78 \cdot$ refine-user

 $5.37 \cdot 10^{-4} \cdot x - 5.78 \cdot$ type-pf-cast-user

type-pf-cast-real

type-admit-cast-re

type-admit-cast-us

check-admit-cast-r

check-admit-cast-u

build-eval-thunk-u

 $1.13 \cdot 10^{-4} \cdot x - 1.06 \cdot$ build-eval-thunk-re $1.13 \cdot 10^{-4} \cdot x - 8.26$ build-thunk-user $1.12 \cdot 10^{-4} \cdot x - 1.14 \cdot$ build-thunk-real $1.12 \cdot 10^{-4} \cdot x - 8.94$