

Figure 1: timing-pattern

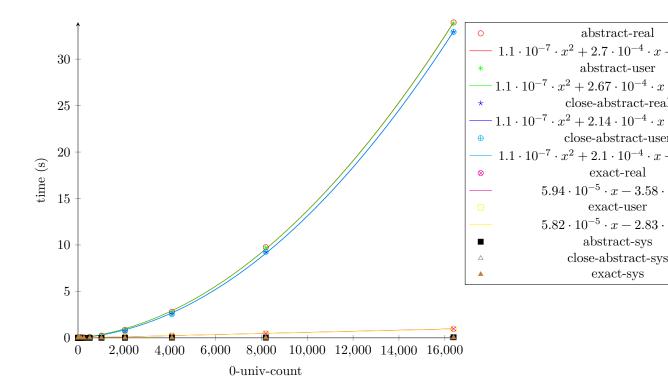


Figure 2: timing-n-polymorphic-universes param-1-n 0

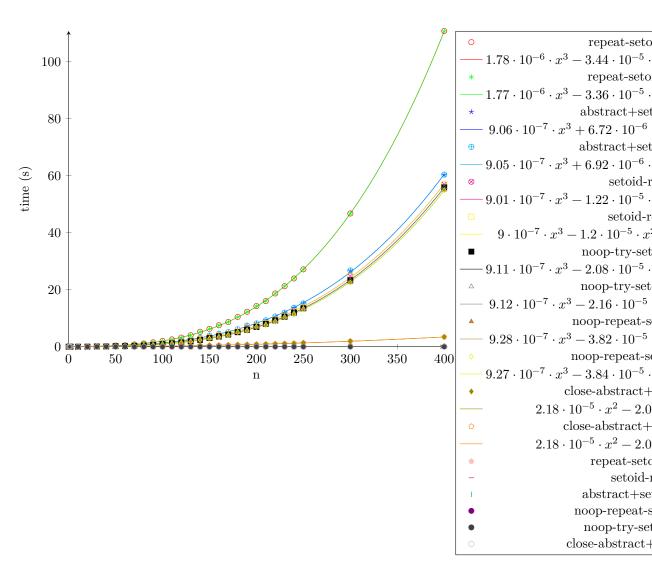
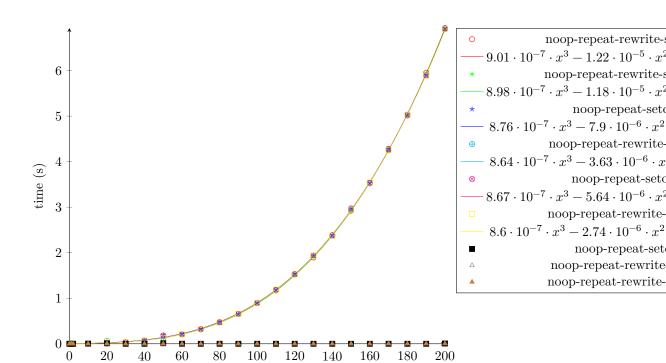


Figure 3: timing-repeat-setoid-rewrite-under-binders



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

n

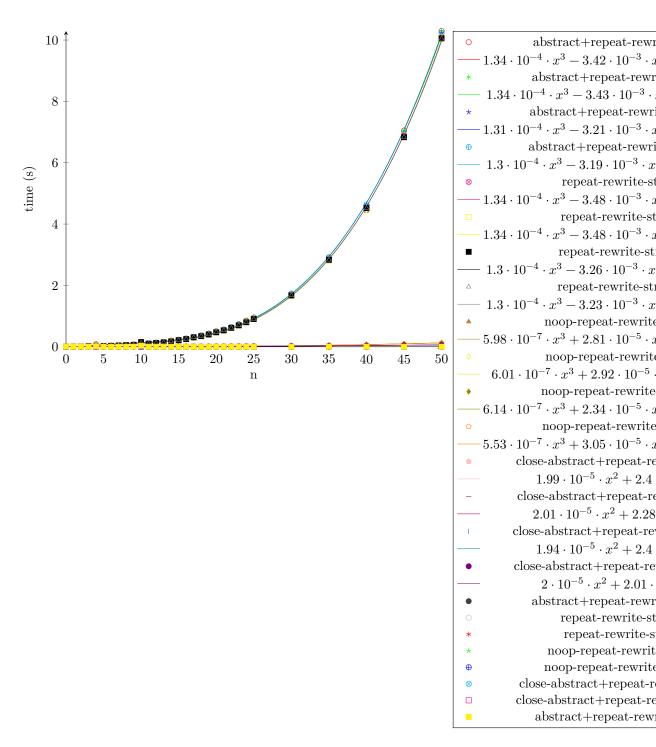


Figure 5: timing-rewrite-strat-under-binders

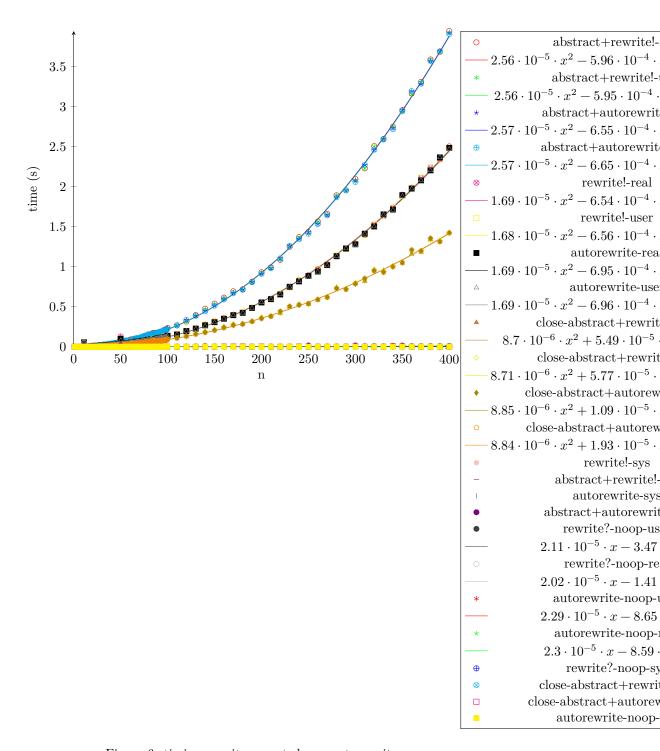


Figure 6: timing-rewrite-repeated-app-autorewrite

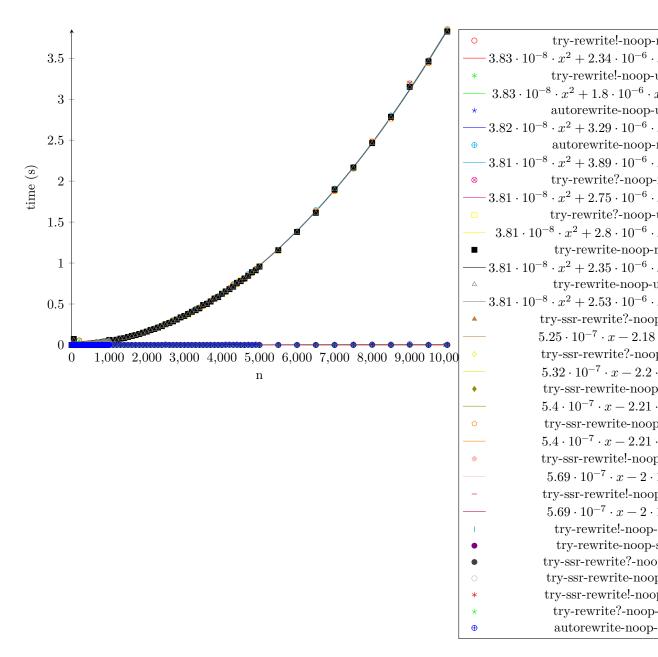


Figure 7: timing-rewrite-repeated-app-autorewrite-noop

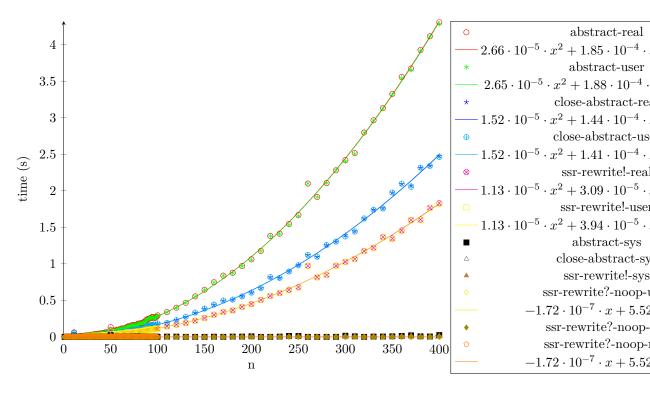


Figure 8: timing-rewrite-repeated-app-ssrrewrite

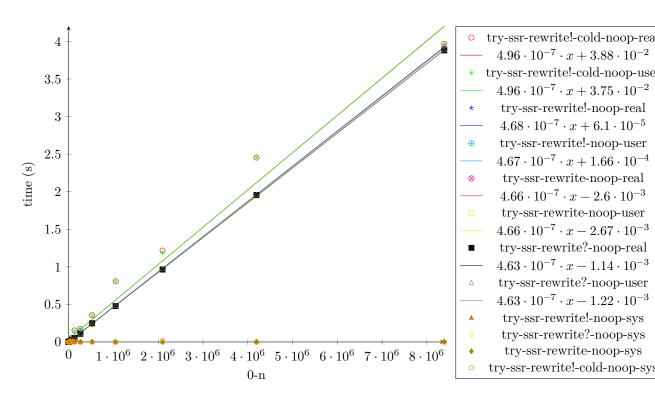


Figure 9: timing-rewrite-repeated-app-ssrrewrite-noop param-1-lgn $\ 1$

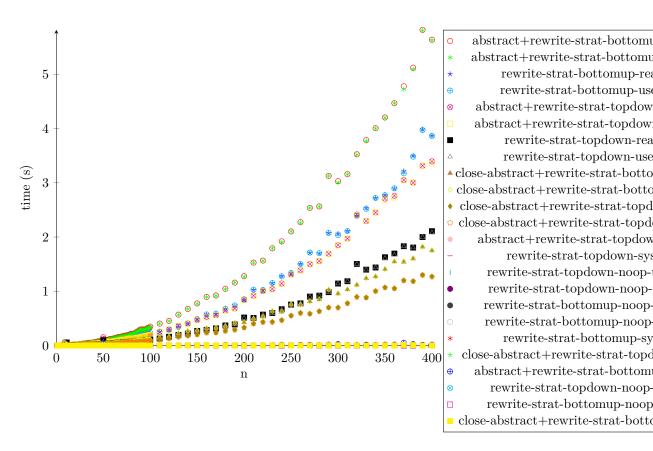


Figure 10: timing-rewrite-repeated-app-rewrite-strat

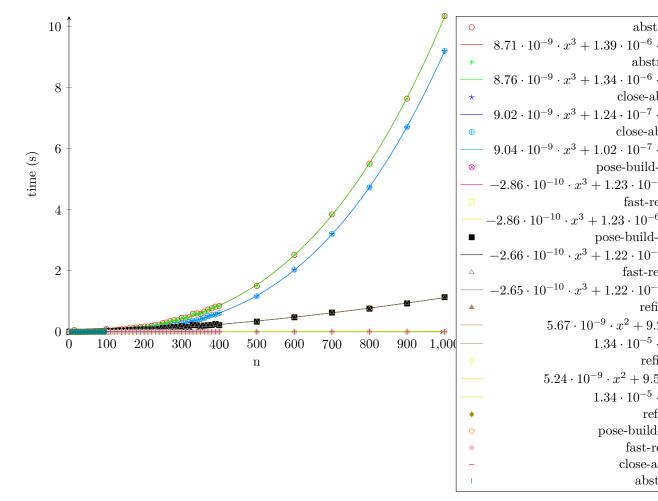
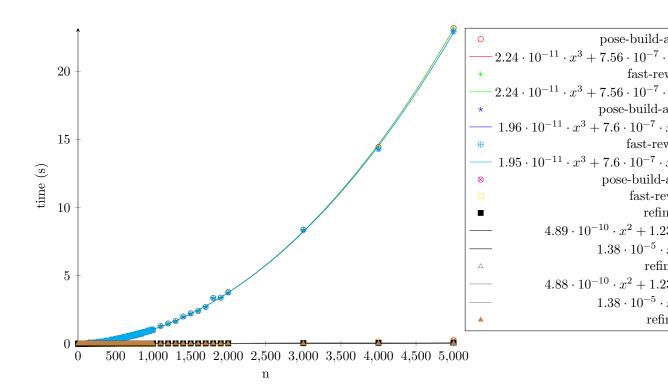
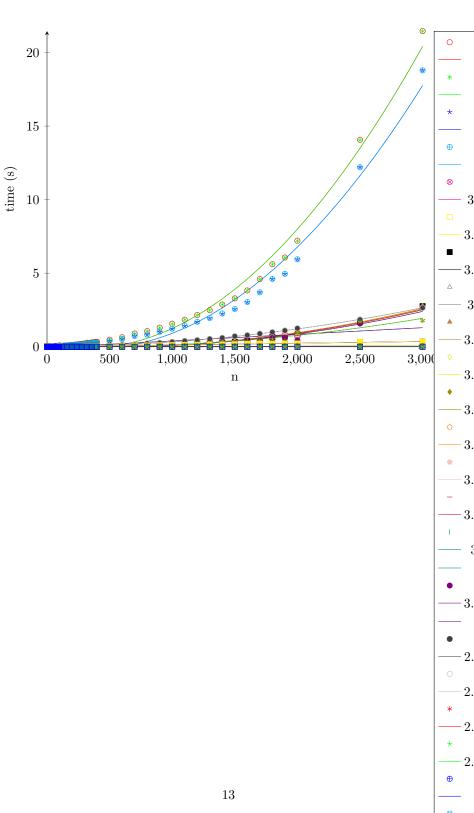


Figure 11: timing-rewrite-repeated-app-fast-rewrite



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



 $2.84 \cdot 10^{-6} \cdot x^2 - 1.77 \cdot 10^{-6}$ $2.84 \cdot 10^{-6} \cdot x^2 - 1.77 \cdot 10^{-6}$ $2.56 \cdot 10^{-6} \cdot x^2 - 1.82 \cdot 10^{-6}$ $2.56 \cdot 10^{-6} \cdot x^2 - 1.82 \cdot 10^{-6}$ $3.92 \cdot 10^{-7} \cdot x^2 - 3.16 \cdot 10^{-4}$ $3.92 \cdot 10^{-7} \cdot x^2 - 3.16 \cdot 10^{-4} \cdot x^2$ $3.89 \cdot 10^{-7} \cdot x^2 - 3.19 \cdot 10^{-4} \cdot x^2$ $3.9 \cdot 10^{-7} \cdot x^2 - 3.19 \cdot 10^{-4} \cdot x$ $3.82 \cdot 10^{-7} \cdot x^2 - 3.14 \cdot 10^{-4} \cdot x^2$ $3.82 \cdot 10^{-7} \cdot x^2 - 3.13 \cdot 10^{-4} \cdot x^2$ $3.89 \cdot 10^{-7} \cdot x^2 - 3.13 \cdot 10^{-4} \cdot x^2$ $3.89 \cdot 10^{-7} \cdot x^2 - 3.13 \cdot 10^{-4} \cdot x^2$ $3.77 \cdot 10^{-7} \cdot x^2 - 3.04 \cdot 10^{-4} \cdot x^2$ $3.77 \cdot 10^{-7} \cdot x^2 - 3.05 \cdot 10^{-4} \cdot x^2$ $3.7 \cdot 10^{-7} \cdot x^2 - 3.17 \cdot 10^{-4} \cdot x^2$ $3.69 \cdot 10^{-7} \cdot x^2 - 3.17 \cdot 10^{-4} \cdot x^2$ $2.78 \cdot 10^{-7} \cdot x^2 + 5.31 \cdot 10^{-5} \cdot x^2$ $2.77 \cdot 10^{-7} \cdot x^2 + 5.32 \cdot 10^{-5} \cdot 10$ $2.59 \cdot 10^{-7} \cdot x^2 - 1.36 \cdot 10^{-4} \cdot x^2$ $2.59 \cdot 10^{-7} \cdot x^2 - 1.36 \cdot 10^{-4} \cdot x^2$

abstract-real

abstract-user

fast-rewrite-real

fast-rewrite-user

check-pf-cast-use

check-pf-cast-rea

type-admit-real

type-admit-user

type-admit-cast-us

type-admit-cast-re

type-pf-cast-user

type-pf-cast-real

check-admit-cast-r

check-admit-cast-u

 $4.51 \cdot 10^{-4} \cdot x - 5.5 \cdot$ refine-user

 $4.51 \cdot 10^{-4} \cdot x - 5.49 \cdot$ close-abstract-rea

close-abstract-use

check-admit-real

check-admit-user

build-eval-thunk-re

 $1.21 \cdot 10^{-4} \cdot x - 5.18 \cdot$ build-thunk-real $1.2 \cdot 10^{-4} \cdot x - 6.78 \cdot$ build-eval-thunk-u $1.2 \cdot 10^{-4} \cdot x - 6.76 \cdot$ build-thunk-user $1.19 \cdot 10^{-4} \cdot x - 8.32$ ob ools I see

refine-real