

Figure 1: timing-pattern

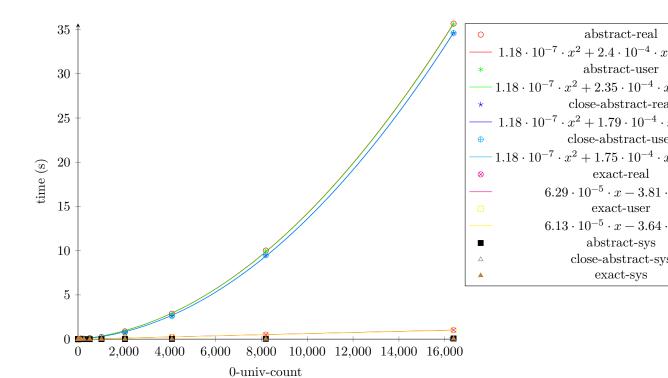


Figure 2: timing-n-polymorphic-universes param-1-n 0

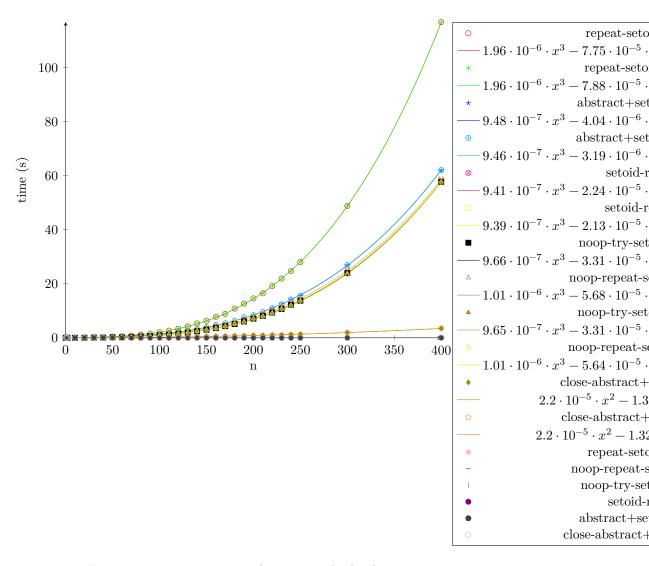


Figure 3: timing-repeat-setoid-rewrite-under-binders

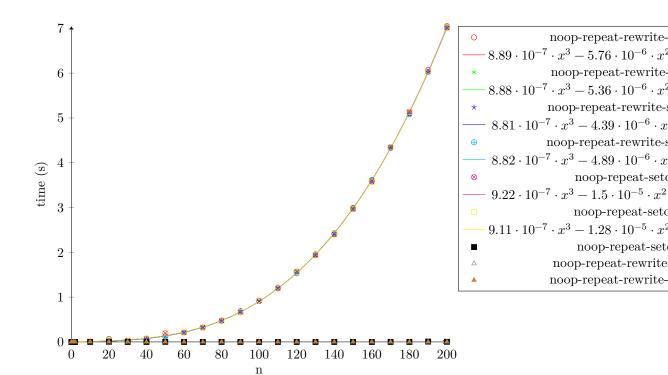


Figure 4: timing-repeat-setoid-rewrite-under-binders-noop

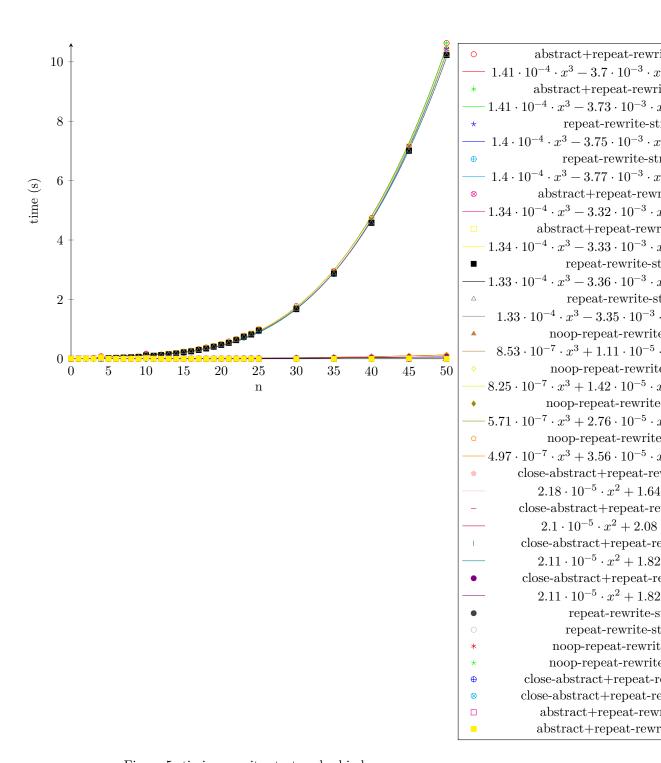


Figure 5: timing-rewrite-strat-under-binders

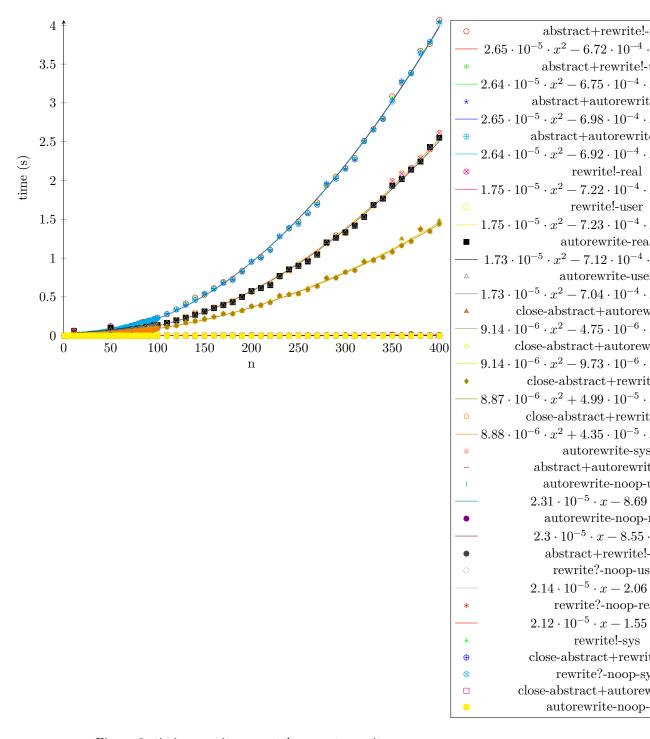


Figure 6: timing-rewrite-repeated-app-autorewrite

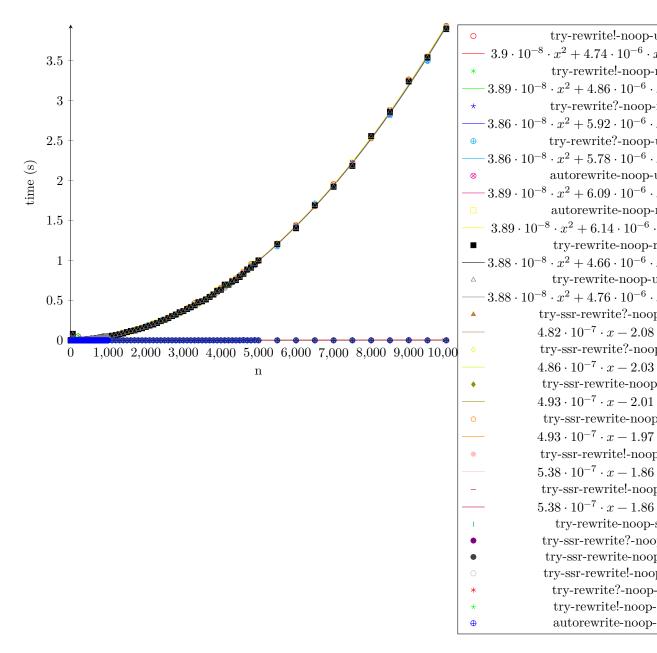


Figure 7: timing-rewrite-repeated-app-autorewrite-noop

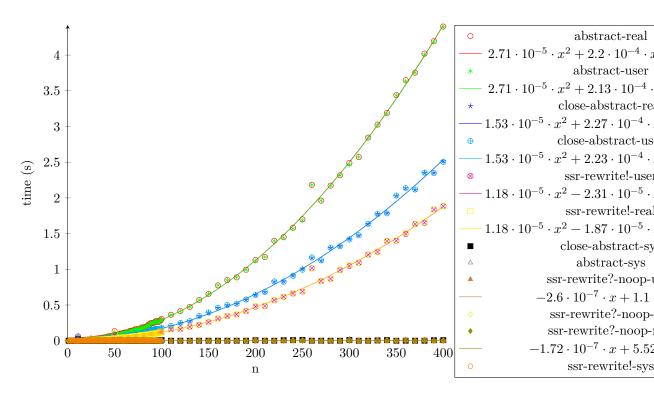


Figure 8: timing-rewrite-repeated-app-ssrrewrite

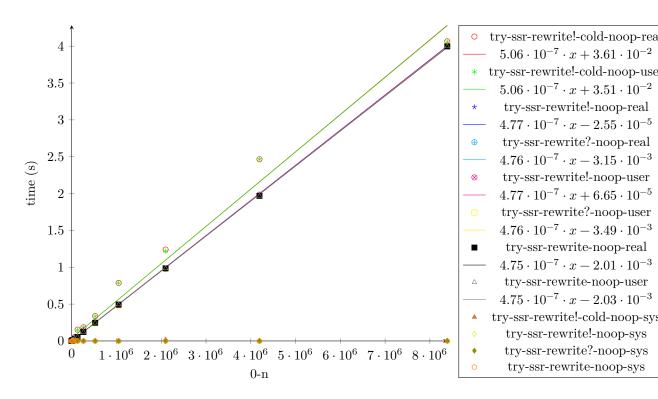


Figure 9: timing-rewrite-repeated-app-ssrrewrite-noop param-1-lgn $\ 1$

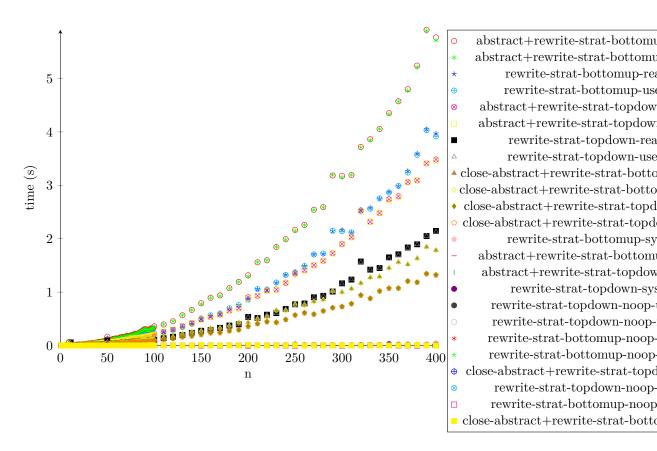


Figure 10: timing-rewrite-repeated-app-rewrite-strat

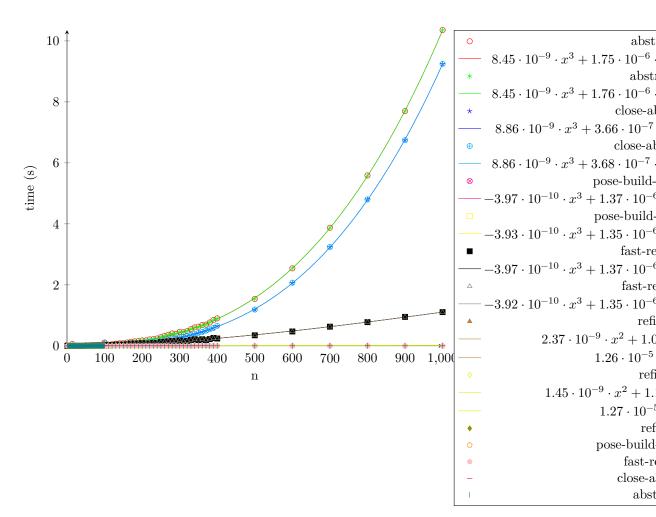
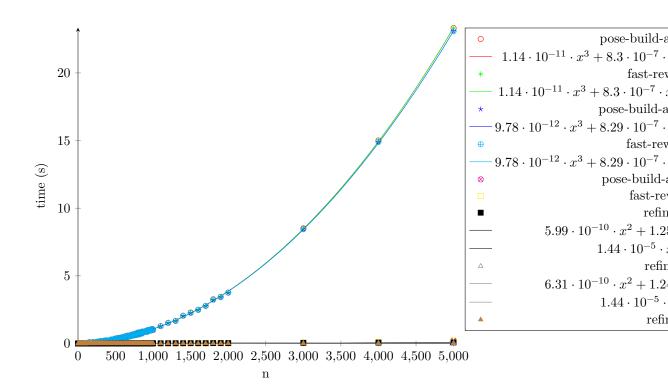
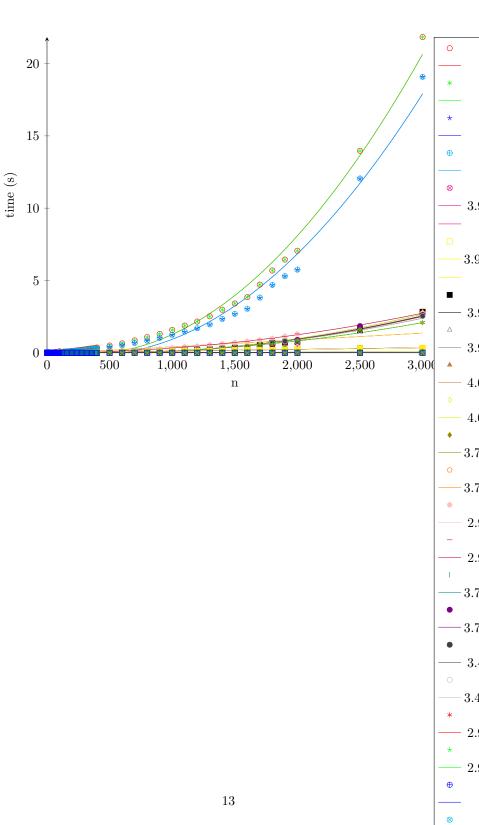


Figure 11: timing-rewrite-repeated-app-fast-rewrite



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



abstract-real

abstract-user

fast-rewrite-real

fast-rewrite-user

refine-user

 $4.72 \cdot 10^{-4} \cdot x - 5.8 \cdot$ refine-real

 $4.73 \cdot 10^{-4} \cdot x - 5.79 \cdot$

check-admit-cast-r

check-admit-cast-u

type-pf-cast-user

type-pf-cast-real

type-admit-real

type-admit-user

close-abstract-use

close-abstract-rea

type-admit-cast-re

type-admit-cast-us

check-pf-cast-rea

check-pf-cast-use

check-admit-user

check-admit-real

build-eval-thunk-re

 $1.18 \cdot 10^{-4} \cdot x - 6.9$ build-thunk-real $1.17 \cdot 10^{-4} \cdot x - 7.54 \cdot$ build-eval-thunk-u $1.17 \cdot 10^{-4} \cdot x - 8.24 \cdot$ build-thunk-user $1.16 \cdot 10^{-4} \cdot x - 9.02 \cdot$ shool. I was

 $2.87 \cdot 10^{-6} \cdot x^2 - 1.78 \cdot 10^{-6}$

 $2.87 \cdot 10^{-6} \cdot x^2 - 1.78 \cdot 10^{-6}$

 $2.58 \cdot 10^{-6} \cdot x^2 - 1.82 \cdot 10^{-8}$