

Figure 1: timing-pattern

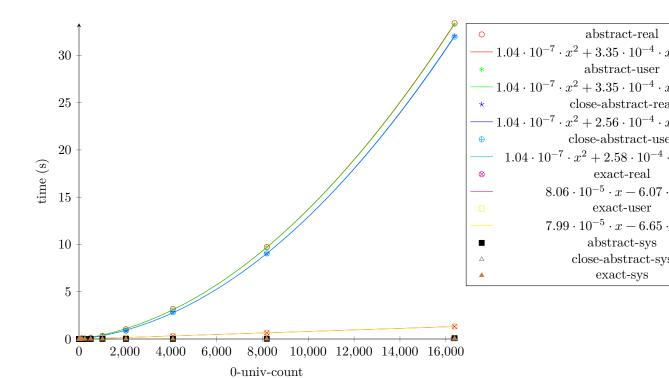


Figure 2: timing-n-polymorphic-universes param-1-n 0

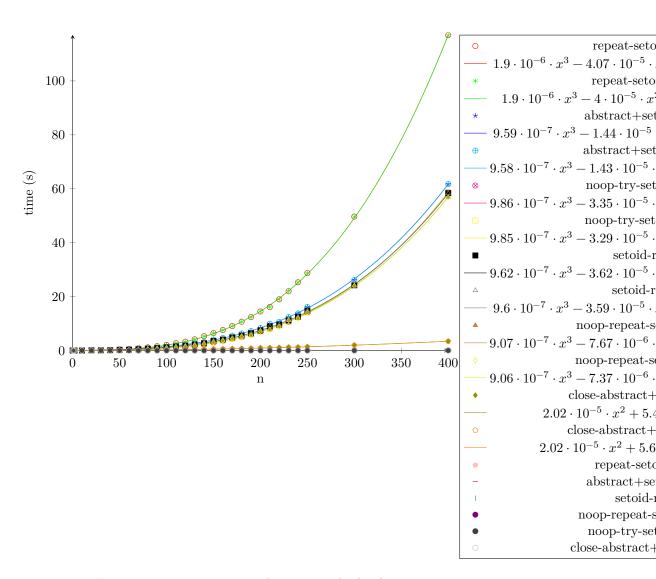
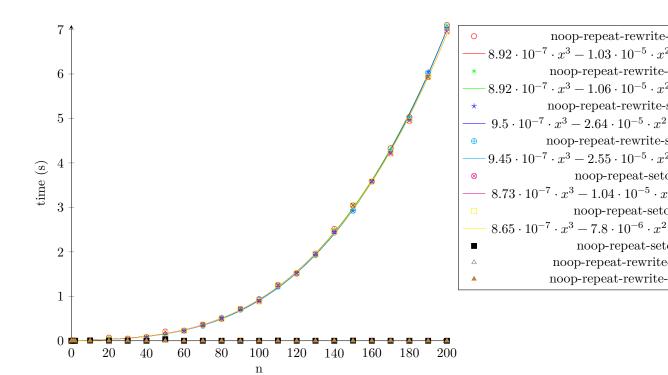


Figure 3: timing-repeat-setoid-rewrite-under-binders



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

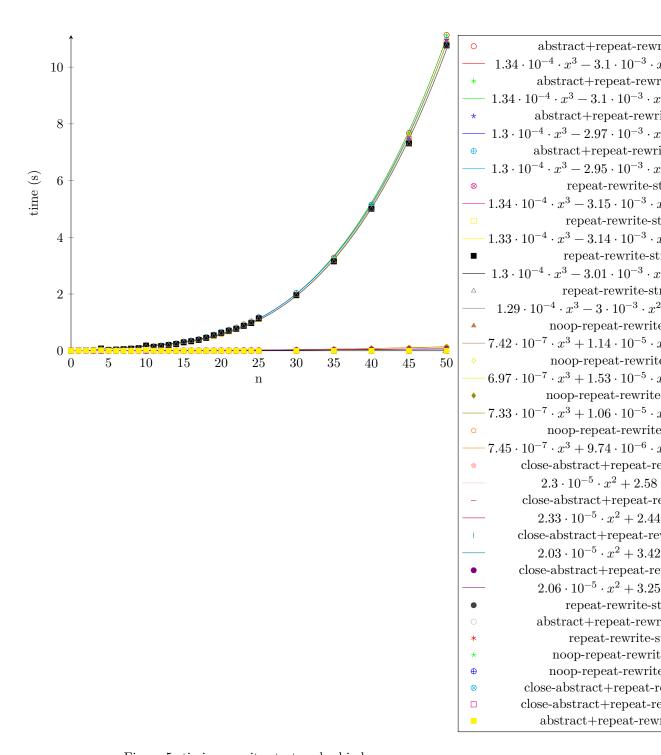


Figure 5: timing-rewrite-strat-under-binders

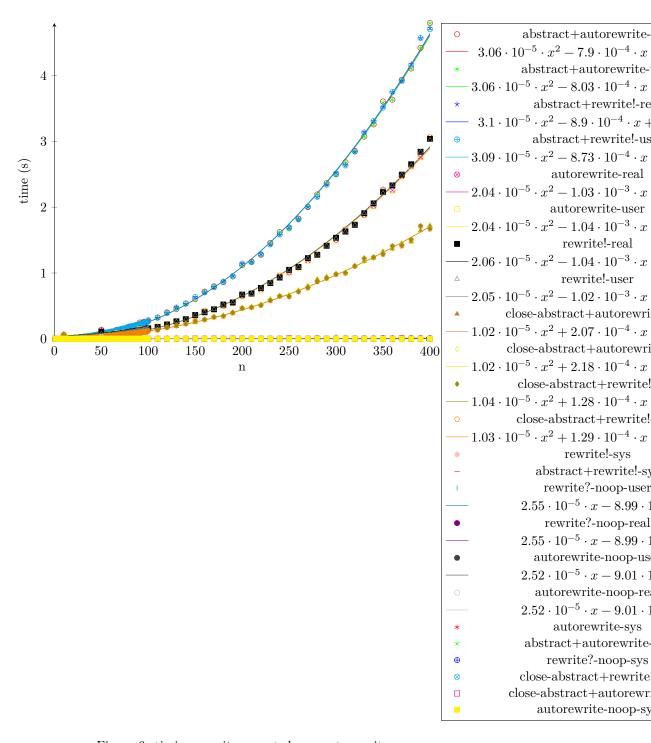


Figure 6: timing-rewrite-repeated-app-autorewrite

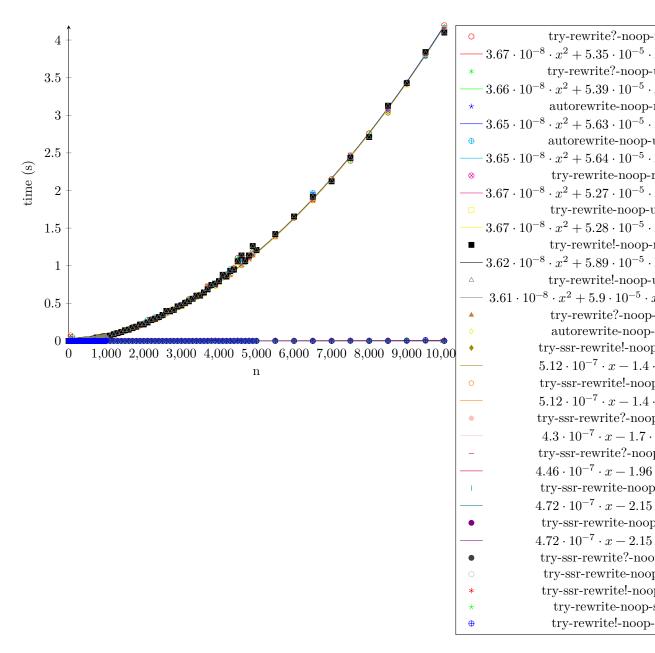
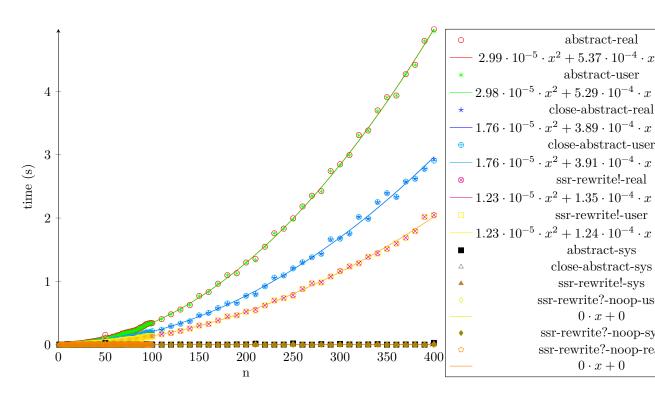


Figure 7: timing-rewrite-repeated-app-autorewrite-noop



 ${\bf Figure~8:~timing\text{-}rewrite\text{-}repeated\text{-}app\text{-}ssrrewrite}$

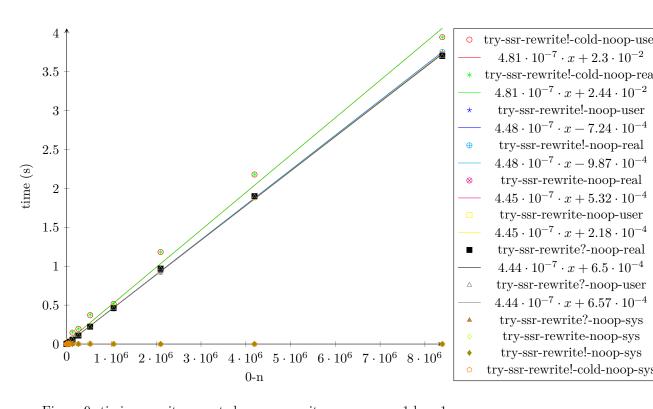


Figure 9: timing-rewrite-repeated-app-ssrrewrite-noop param-1-lgn $\ 1$

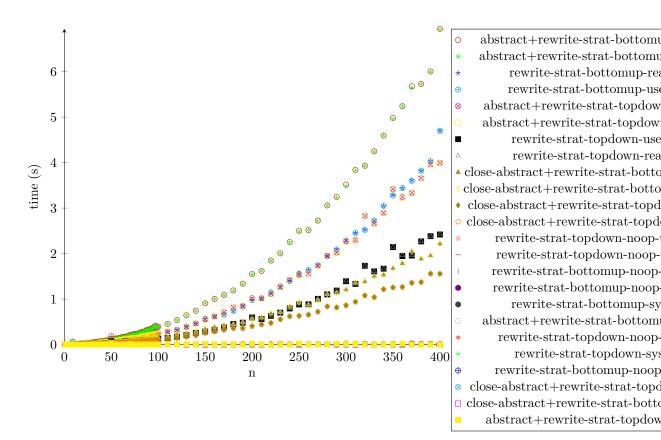


Figure 10: timing-rewrite-repeated-app-rewrite-strat

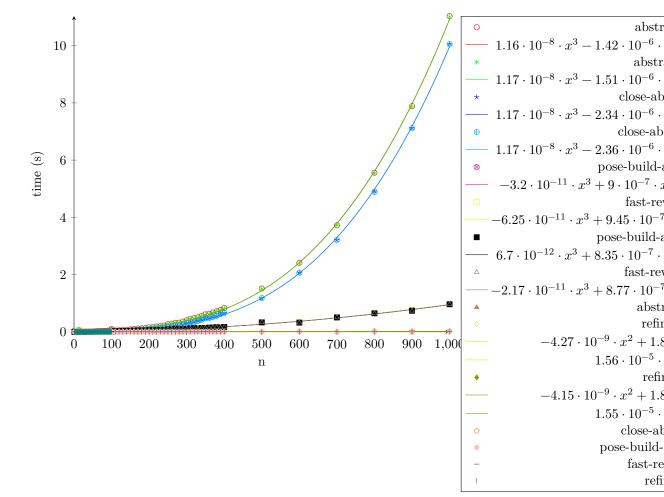
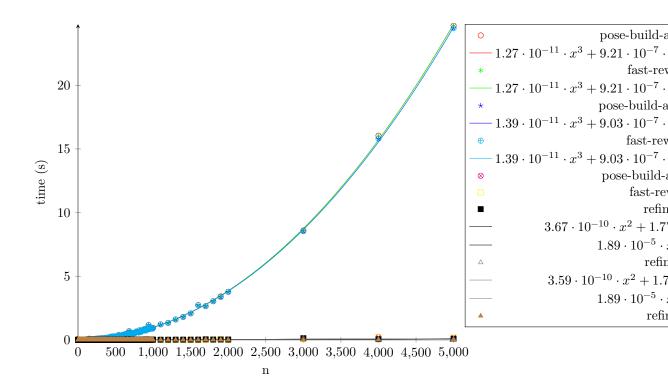
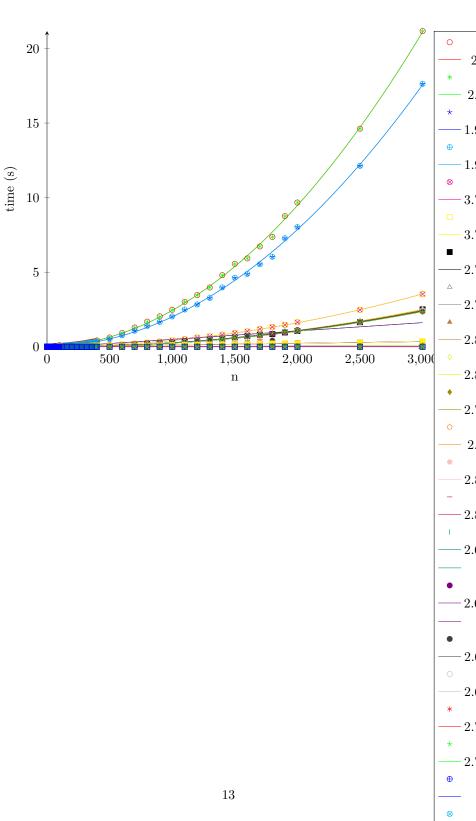


Figure 11: timing-rewrite-repeated-app-fast-rewrite



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



 $2.3 \cdot 10^{-6} \cdot x^2 + 1.28 \cdot 10^{-4} \cdot x^2$ $2.3 \cdot 10^{-6} \cdot x^2 + 1.19 \cdot 10^{-4} \cdot x$ $-1.93 \cdot 10^{-6} \cdot x^2 + 7.01 \cdot 10^{-5} \cdot x^2$ $1.93 \cdot 10^{-6} \cdot x^2 + 6.36 \cdot 10^{-5} \cdot x^2$ $3.76 \cdot 10^{-7} \cdot x^2 + 5.37 \cdot 10^{-5} \cdot x^2$ $3.76 \cdot 10^{-7} \cdot x^2 + 5.57 \cdot 10^{-5} \cdot x^2$ $2.79 \cdot 10^{-7} \cdot x^2 - 1.43 \cdot 10^{-5} \cdot x^2$ $2.78 \cdot 10^{-7} \cdot x^2 - 1.38 \cdot 10^{-5} \cdot x^2 - 1.38 \cdot 10^{-5} \cdot x^2 + 1.38 \cdot 10^{-5} \cdot x^2$ $2.82 \cdot 10^{-7} \cdot x^2 - 1.28 \cdot 10^{-5} \cdot x^2 = 1.28 \cdot 10^{-5} \cdot x^2 + 1.28 \cdot 10^{-5} \cdot x^2$ $2.83 \cdot 10^{-7} \cdot x^2 - 1.57 \cdot 10^{-5} \cdot x^2 - 1.57 \cdot 10^{-5} \cdot x^2 + 1.57 \cdot 10^{-5} \cdot x^2$ $2.78 \cdot 10^{-7} \cdot x^2 - 1.36 \cdot 10^{-5} \cdot x^2$ $2.78 \cdot 10^{-7} \cdot x^2 - 1.34 \cdot 10^{-5}$ $2.82 \cdot 10^{-7} \cdot x^2 - 3.93 \cdot 10^{-5} \cdot x^2$ $2.82 \cdot 10^{-7} \cdot x^2 - 3.87 \cdot 10^{-5} \cdot x^2$ $2.61 \cdot 10^{-7} \cdot x^2 + 1.66 \cdot 10^{-5} \cdot x^2$ $2.61 \cdot 10^{-7} \cdot x^2 + 1.76 \cdot 10^{-5} \cdot x^2$ $2.65 \cdot 10^{-7} \cdot x^2 - 9.13 \cdot 10^{-6} \cdot x^2$ $2.65 \cdot 10^{-7} \cdot x^2 - 8.58 \cdot 10^{-6} \cdot x^2$ $2.76 \cdot 10^{-7} \cdot x^2 - 3.91 \cdot 10^{-5} \cdot x^2 = 3.91 \cdot 10^{-5} \cdot x^2 + 3.91 \cdot 10^{-5} \cdot x^2$ $2.76 \cdot 10^{-7} \cdot x^2 - 3.86 \cdot 10^{-5} \cdot x^2$

abstract-real

abstract-user

fast-rewrite-real

fast-rewrite-user

close-abstract-use

close-abstract-rea

type-pf-cast-real

type-pf-cast-user

check-admit-cast-r

check-admit-cast-u

check-admit-real

check-admit-user

type-admit-cast-us

type-admit-cast-re

 $5.59 \cdot 10^{-4} \cdot x - 6.03 \cdot$ refine-real

 $5.6 \cdot 10^{-4} \cdot x - 6.03$ check-pf-cast-use

check-pf-cast-rea

type-admit-user

type-admit-real

build-eval-thunk-u

 $1.17 \cdot 10^{-4} \cdot x - 5.59$ build-eval-thunk-re $1.17 \cdot 10^{-4} \cdot x - 4.03$ build-thunk-user $1.16 \cdot 10^{-4} \cdot x - 6.45$ build-thunk-real $1.16 \cdot 10^{-4} \cdot x - 5.04$ -1- - -1- T ---

refine-user