

Figure 1: timing-pattern

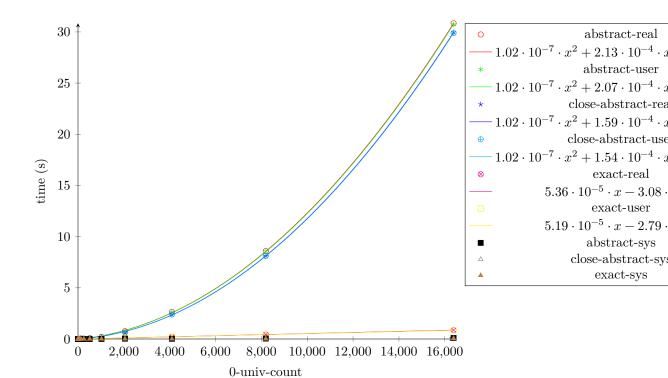


Figure 2: timing-n-polymorphic-universes param-1-n 0

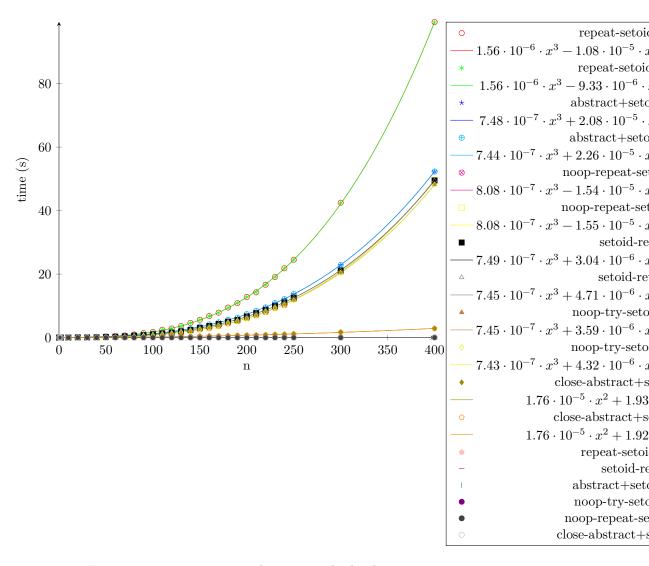
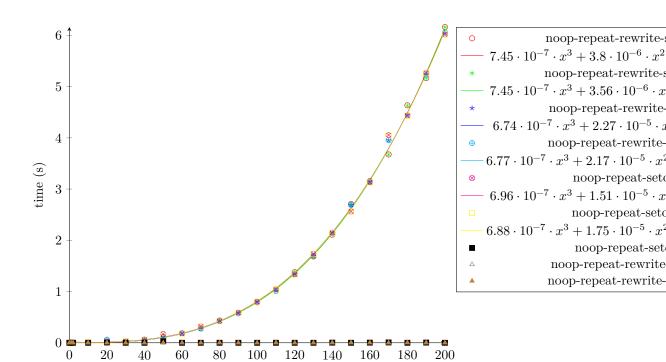


Figure 3: timing-repeat-setoid-rewrite-under-binders



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

n

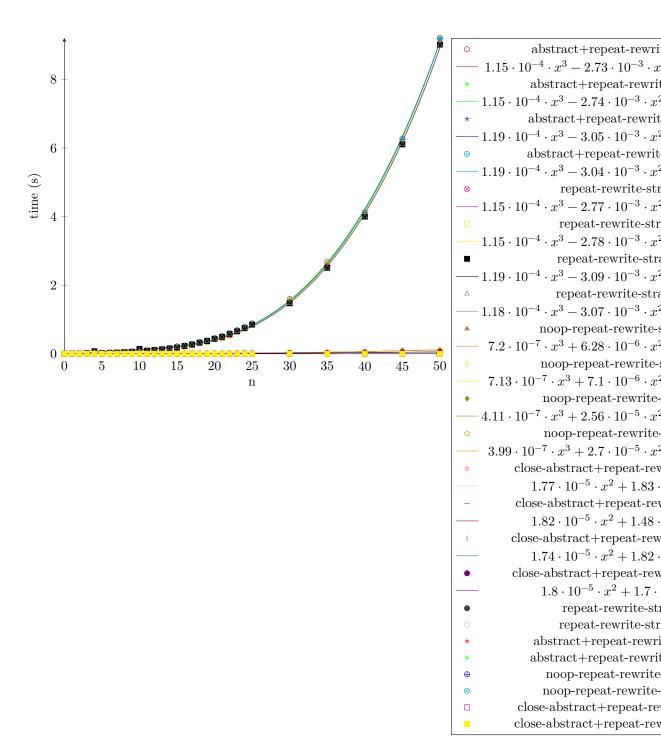


Figure 5: timing-rewrite-strat-under-binders

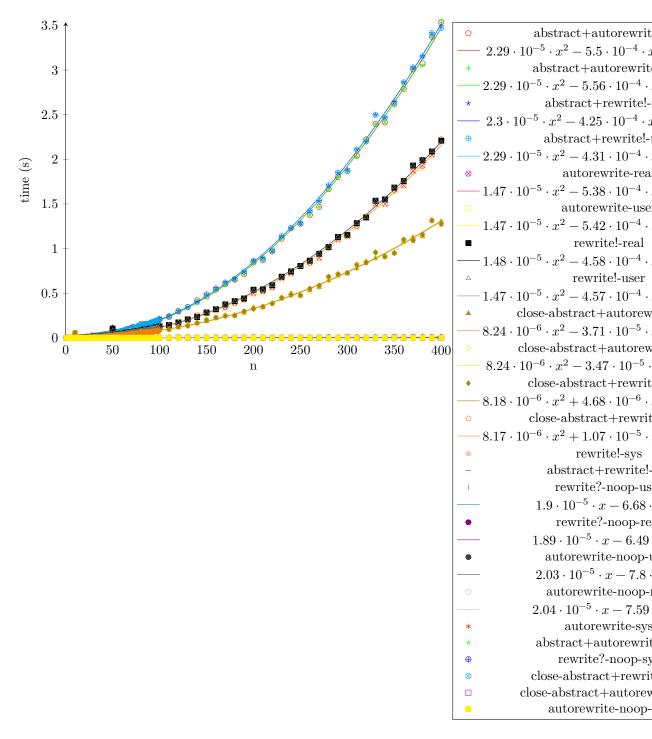


Figure 6: timing-rewrite-repeated-app-autorewrite

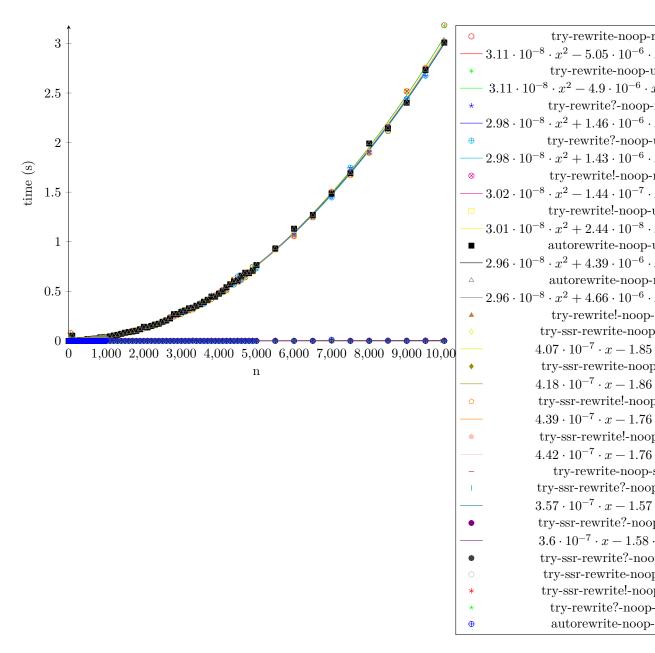


Figure 7: timing-rewrite-repeated-app-autorewrite-noop

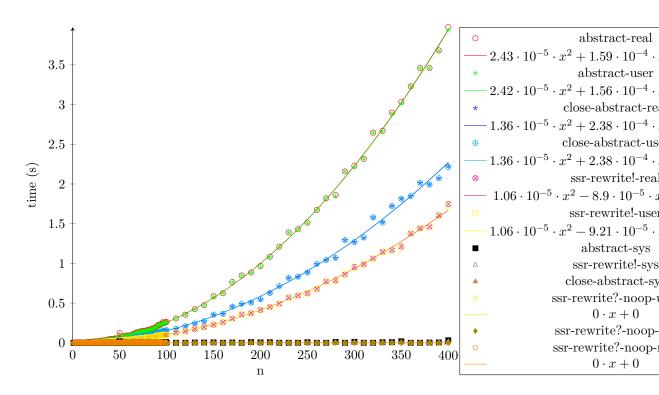


Figure 8: timing-rewrite-repeated-app-ssrrewrite

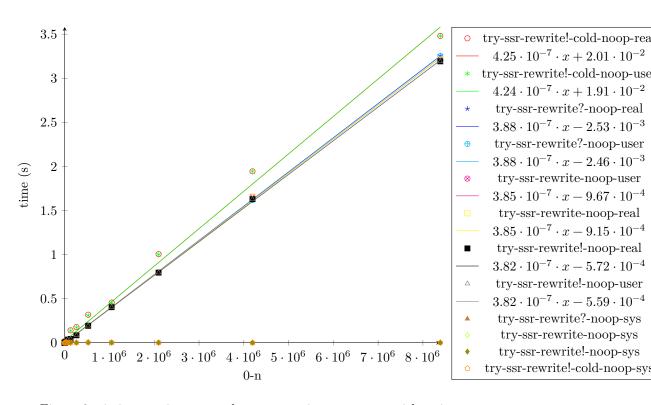


Figure 9: timing-rewrite-repeated-app-ssrrewrite-noop param-1-lgn  $\,1\,$ 

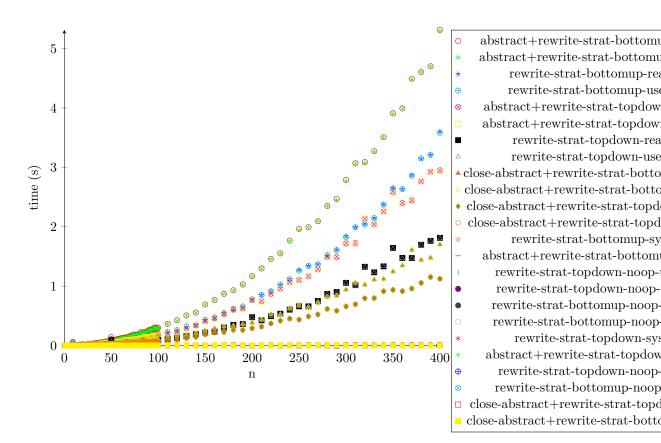
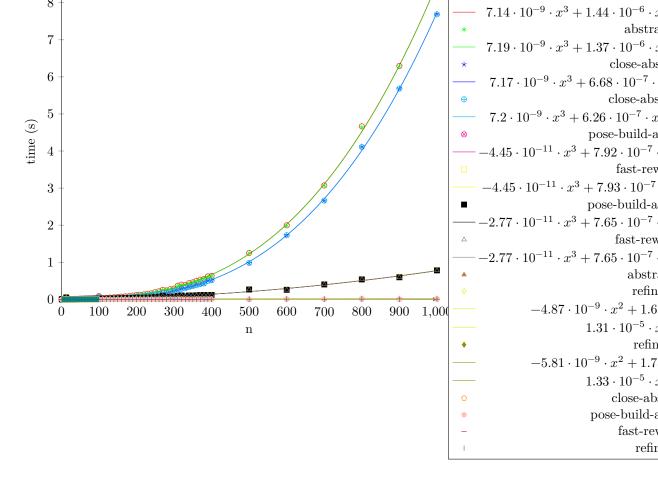


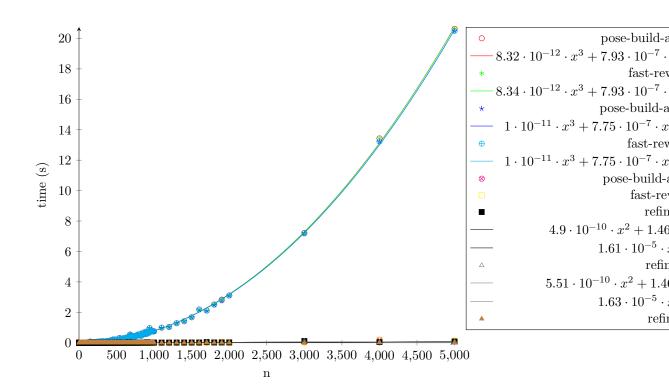
Figure 10: timing-rewrite-repeated-app-rewrite-strat



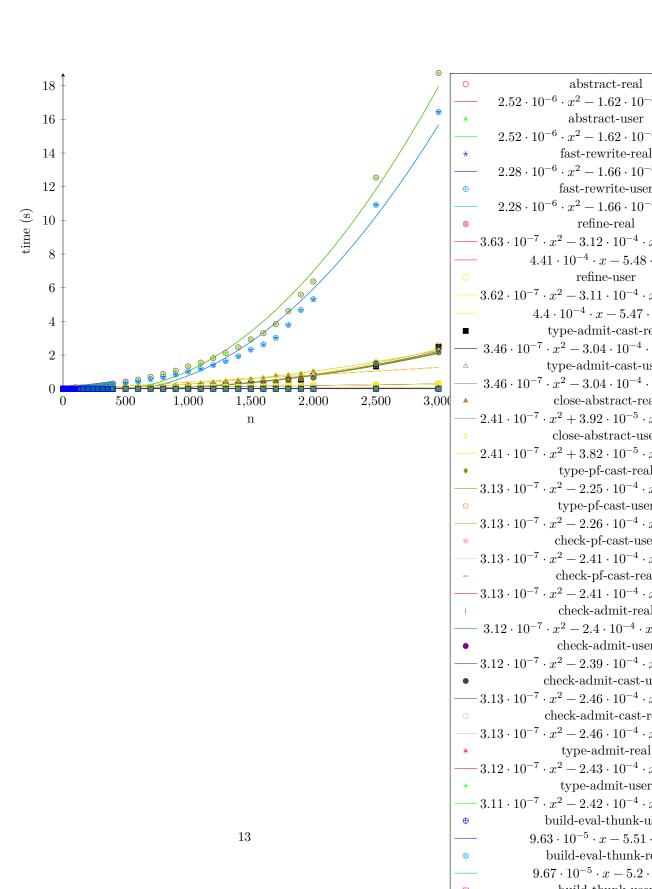
abstra

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

8



Figure~12:~timing-rewrite-repeated-app-fast-rewrite-no-abstract



abstract-real

abstract-user

fast-rewrite-real

fast-rewrite-user

refine-real

 $4.41 \cdot 10^{-4} \cdot x - 5.48 \cdot$ refine-user

 $4.4 \cdot 10^{-4} \cdot x - 5.47 \cdot$ 

type-admit-cast-re

type-admit-cast-us

close-abstract-rea

close-abstract-use

type-pf-cast-real

type-pf-cast-user

check-pf-cast-use

check-pf-cast-rea

check-admit-real

check-admit-user

check-admit-cast-u

check-admit-cast-r

type-admit-real

type-admit-user

build-eval-thunk-ua

 $9.63 \cdot 10^{-5} \cdot x - 5.51 \cdot$ build-eval-thunk-re  $9.67 \cdot 10^{-5} \cdot x - 5.2 \cdot$ build-thunk-user  $9.54 \cdot 10^{-5} \cdot x - 6.04 \cdot$ build-thunk-real  $9.58 \cdot 10^{-5} \cdot x - 5.94 \cdot$ oboole I maon