

Figure 1: timing-pattern

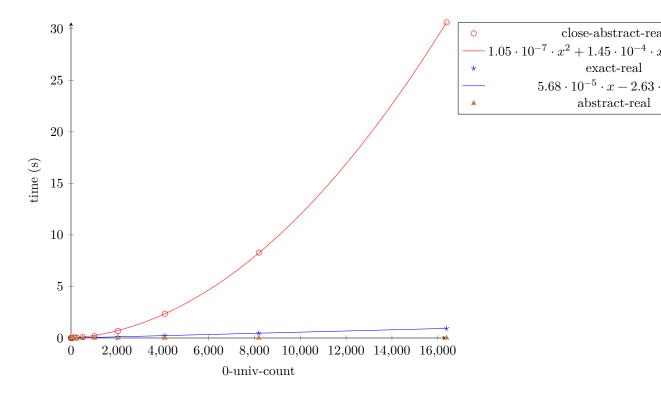
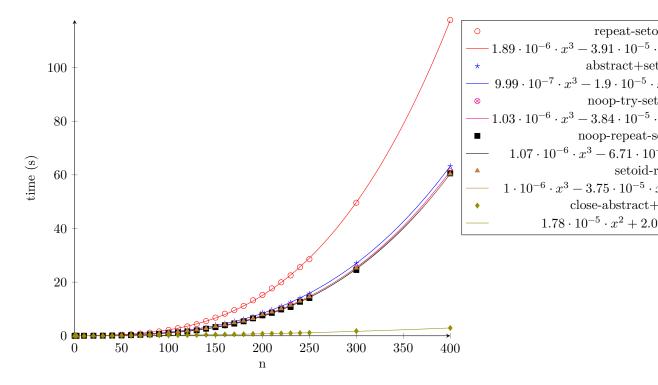


Figure 2: timing-n-polymorphic-universes param-1-n  $\,0\,$ 



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

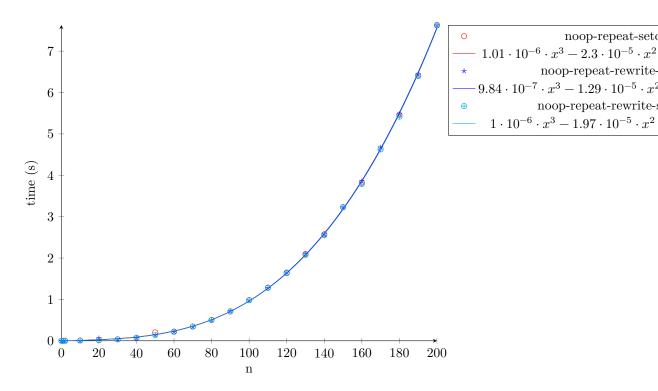
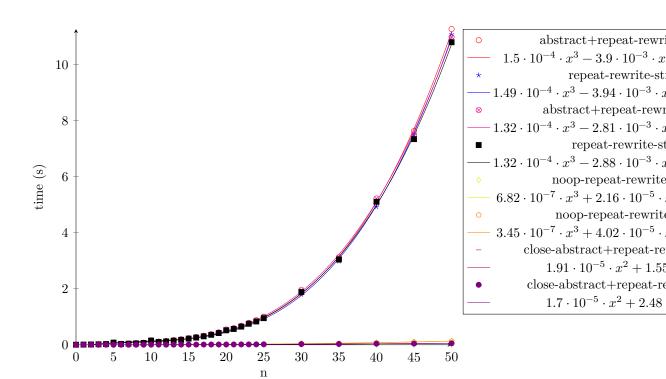
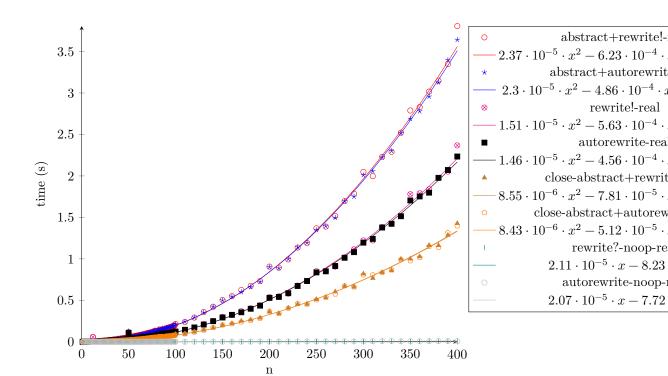


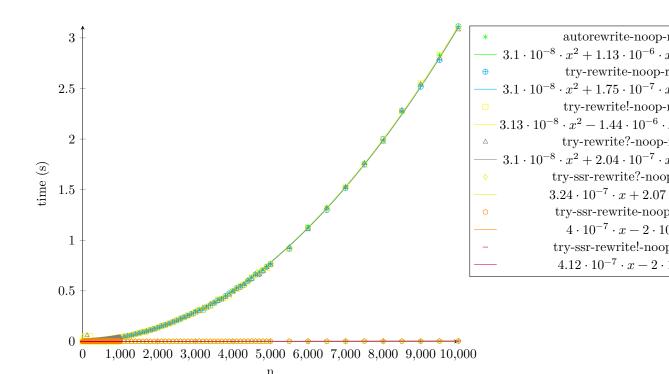
Figure 4: timing-repeat-setoid-rewrite-under-binders-noop



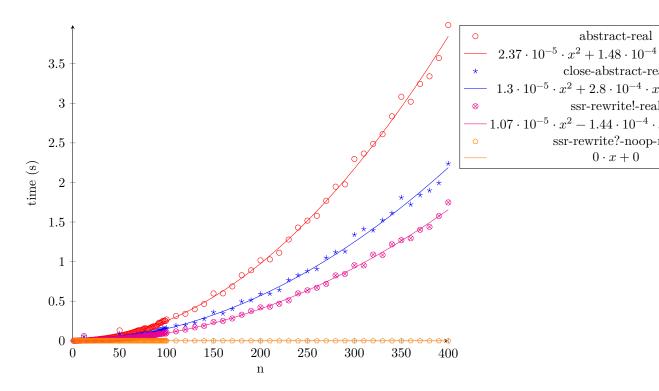
 $Figure\ 5:\ timing-rewrite-strat-under-binders$ 



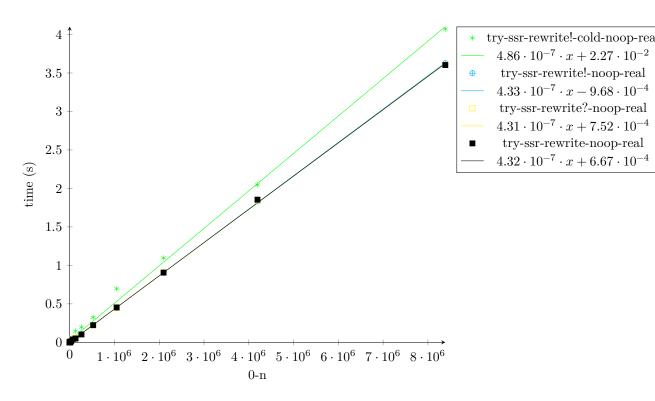
 $Figure \ 6: \ timing-rewrite-repeated-app-autorewrite \\$ 



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



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



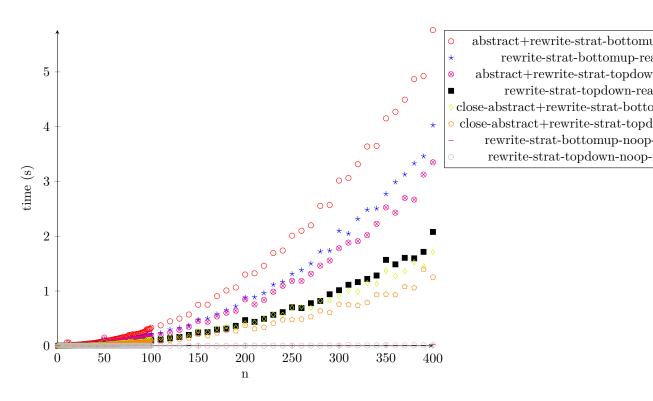
 $4.86\cdot 10^{-7}\cdot x + 2.27\cdot 10^{-2}$ try-ssr-rewrite!-noop-real

 $4.33 \cdot 10^{-7} \cdot x - 9.68 \cdot 10^{-4}$ try-ssr-rewrite?-noop-real

 $4.31 \cdot 10^{-7} \cdot x + 7.52 \cdot 10^{-4}$ try-ssr-rewrite-noop-real

 $4.32 \cdot 10^{-7} \cdot x + 6.67 \cdot 10^{-4}$ 

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



 $abstract + rewrite - strat - bottom \\ \\$ rewrite-strat-bottomup-rea

abstract + rewrite - strat - topdowrewrite-strat-topdown-rea

rewrite-strat-bottomup-noop-

rewrite-strat-topdown-noop-

 $Figure~10:~timing\mbox{-rewrite-repeated-app-rewrite-strat}$ 

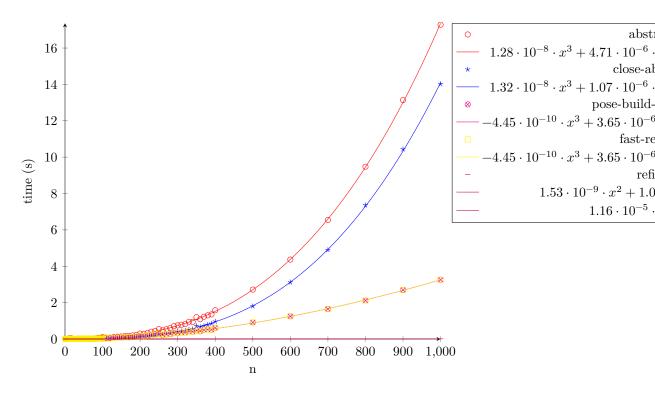
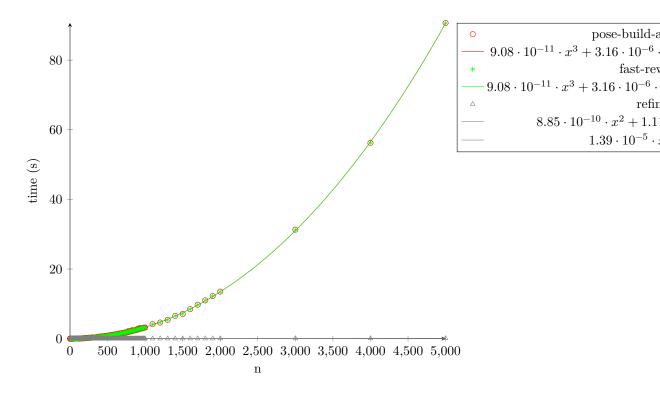


Figure 11: timing-rewrite-repeated-app-fast-rewrite



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