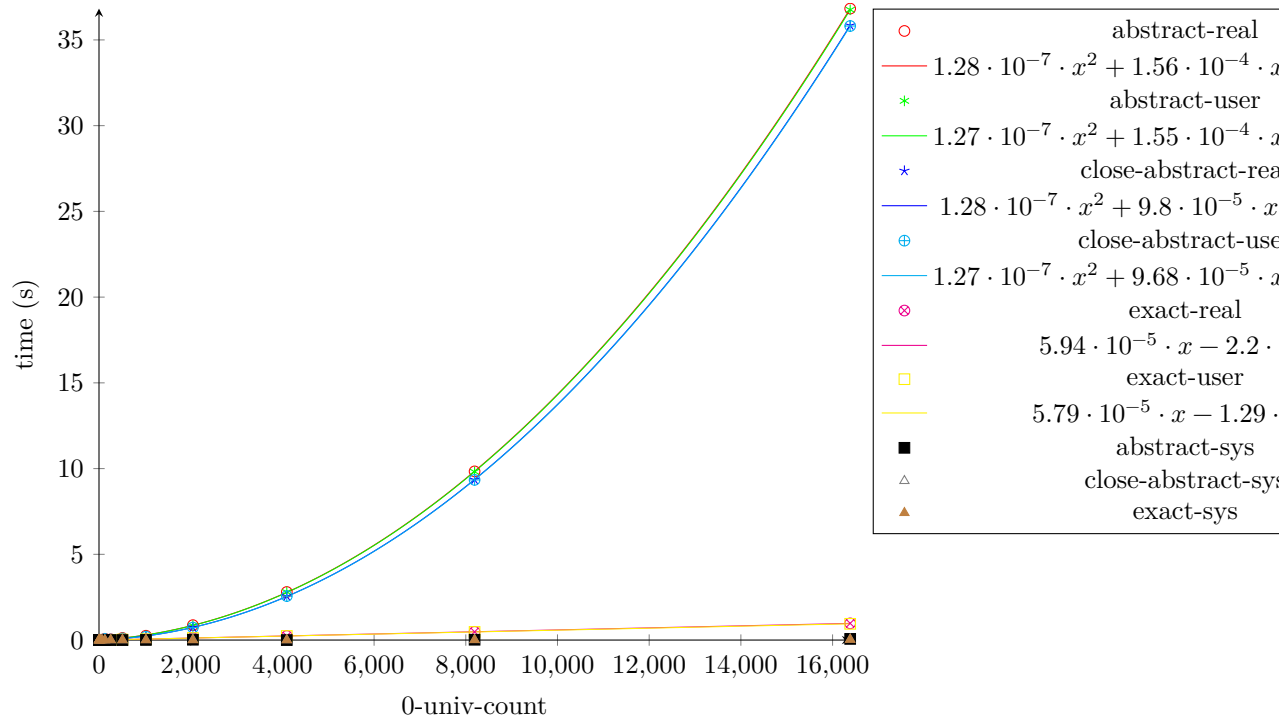Figure 1: timing-pattern

1

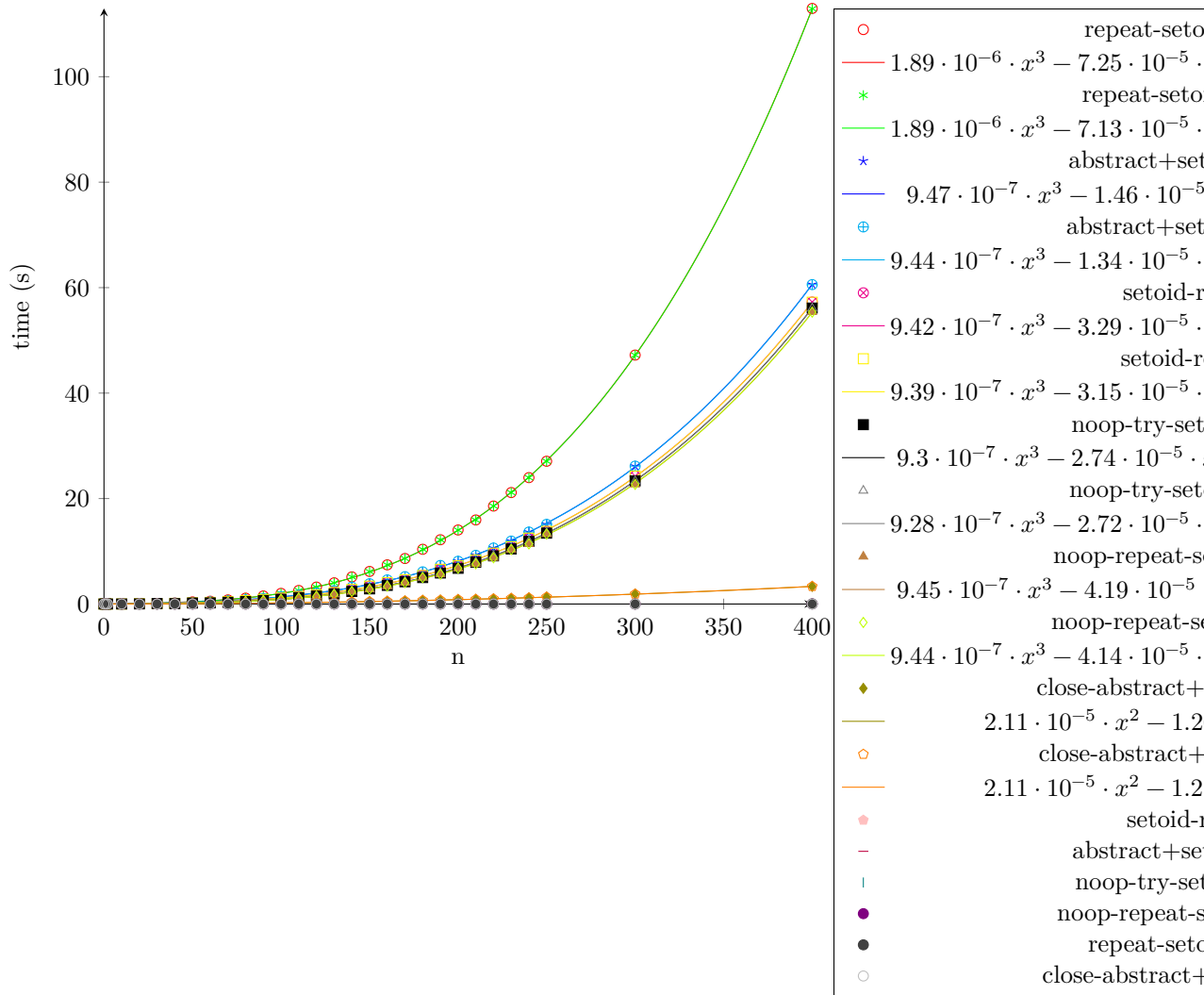Figure 2: timing-n-polymorphic-universes param-1-n 0

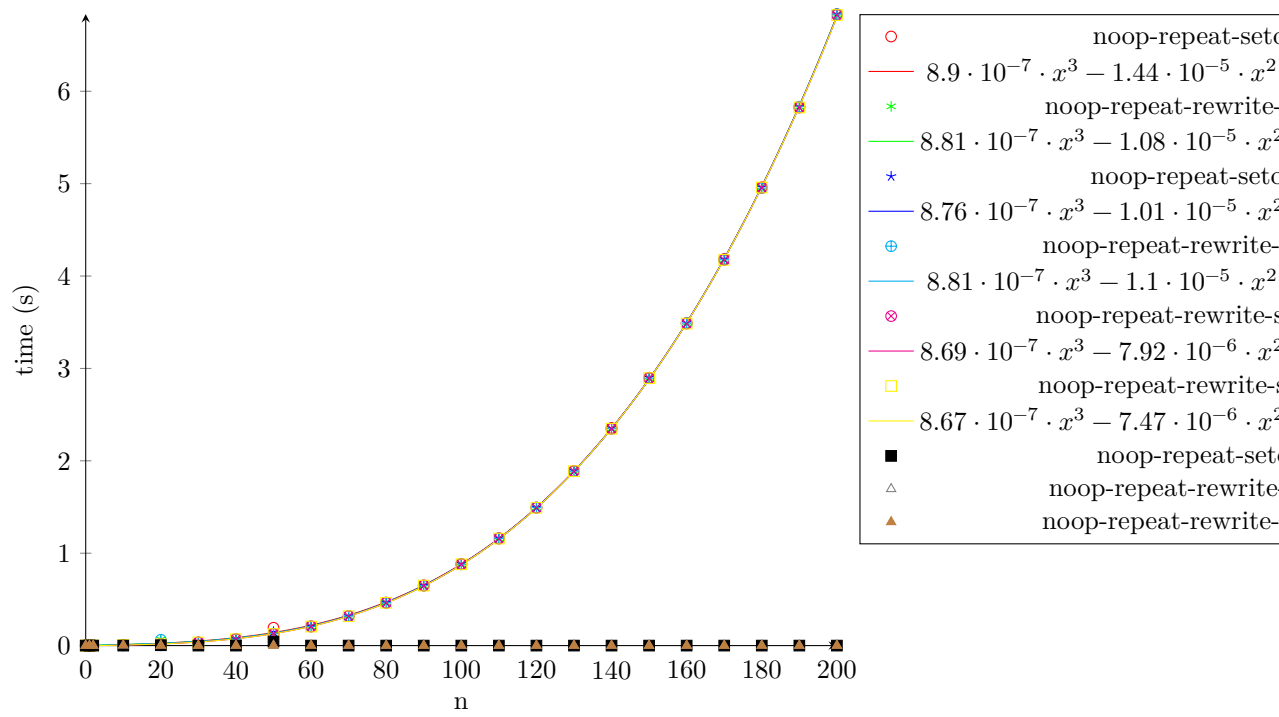Figure 3: timing-repeat-setoid-rewrite-under-binders

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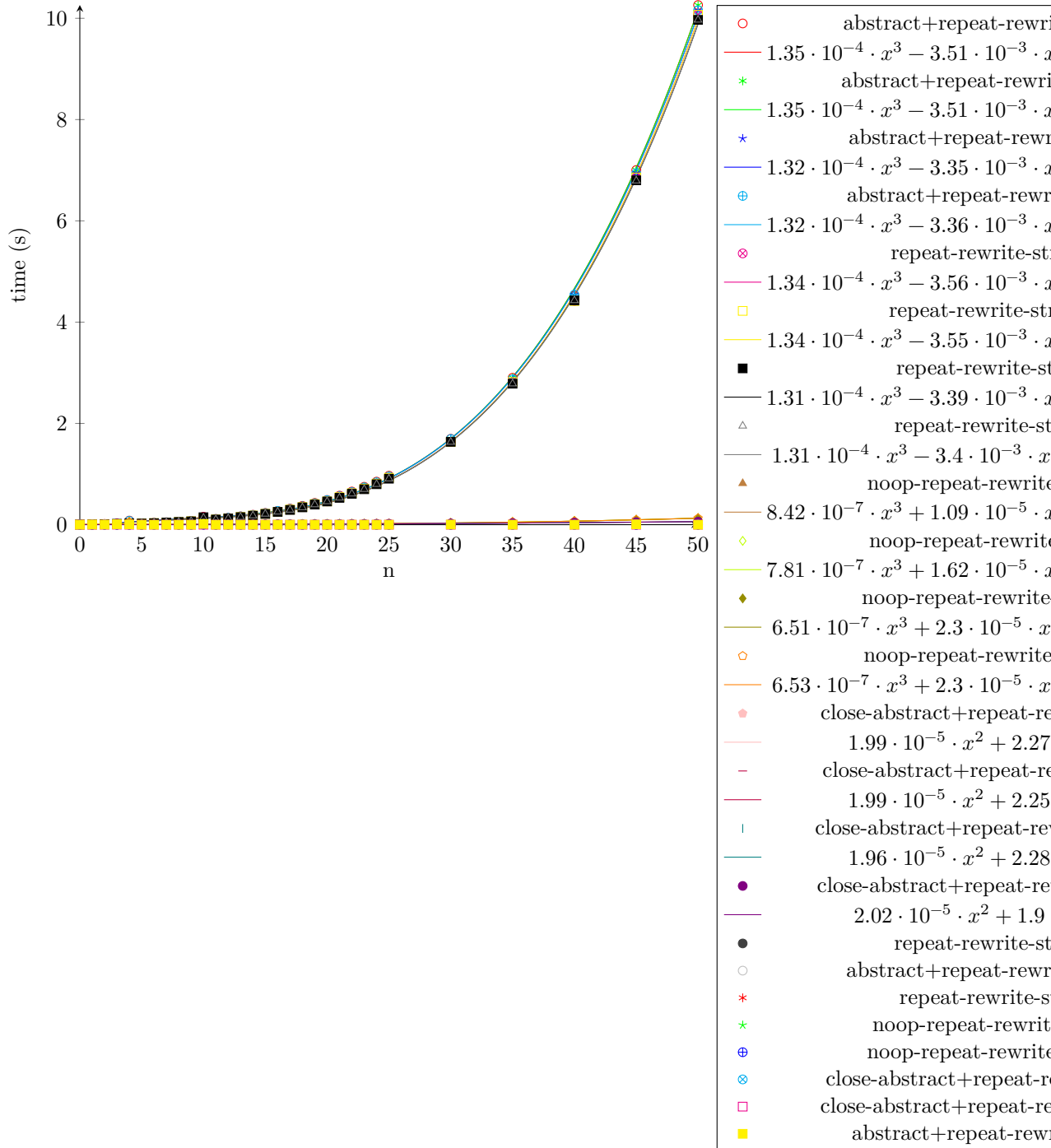
4

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

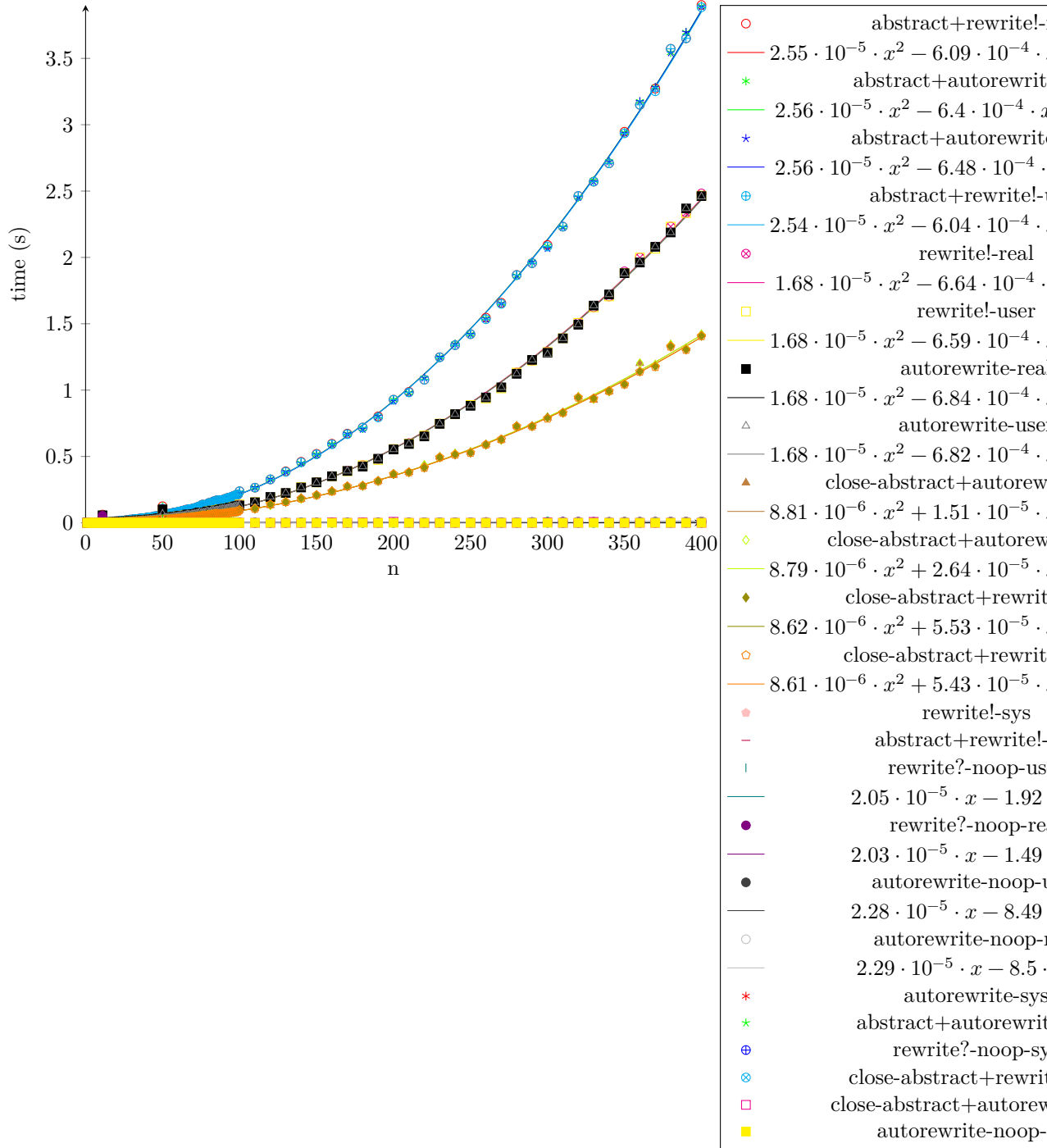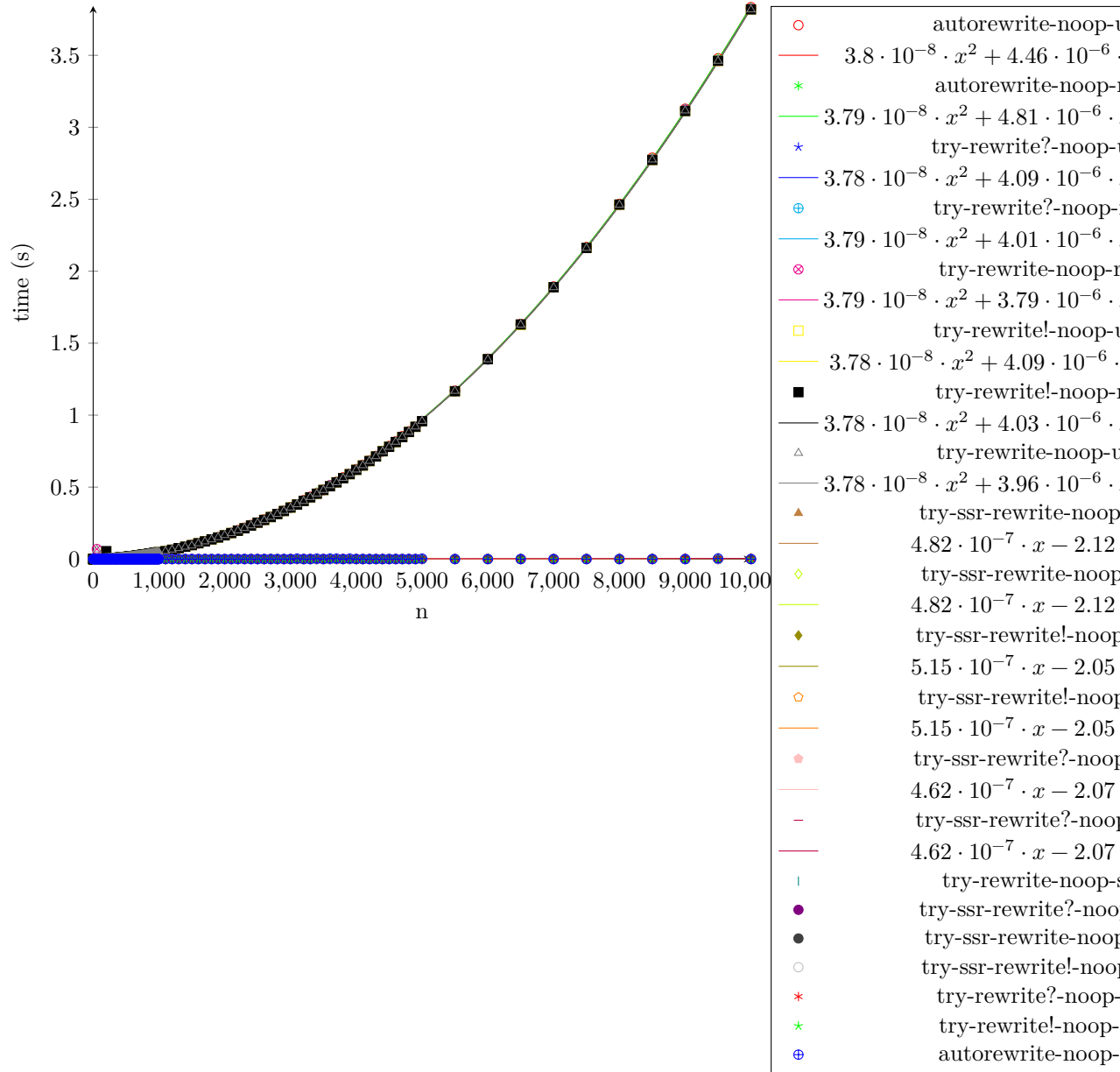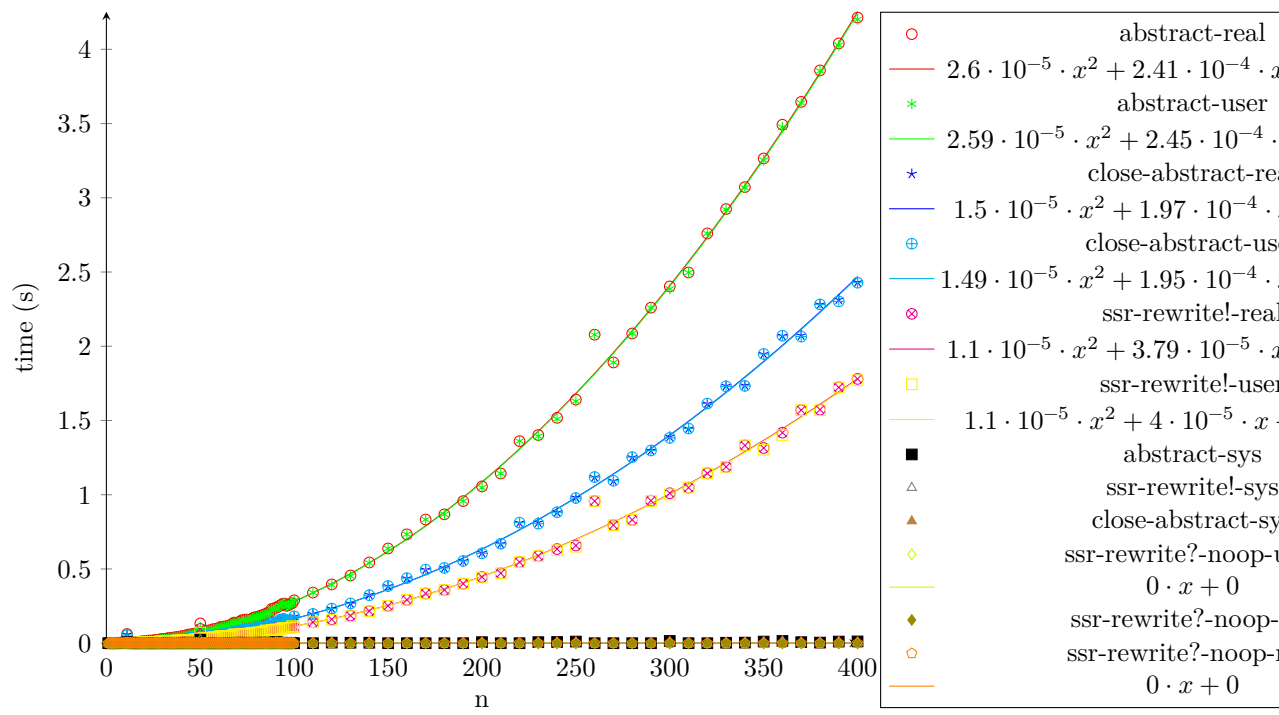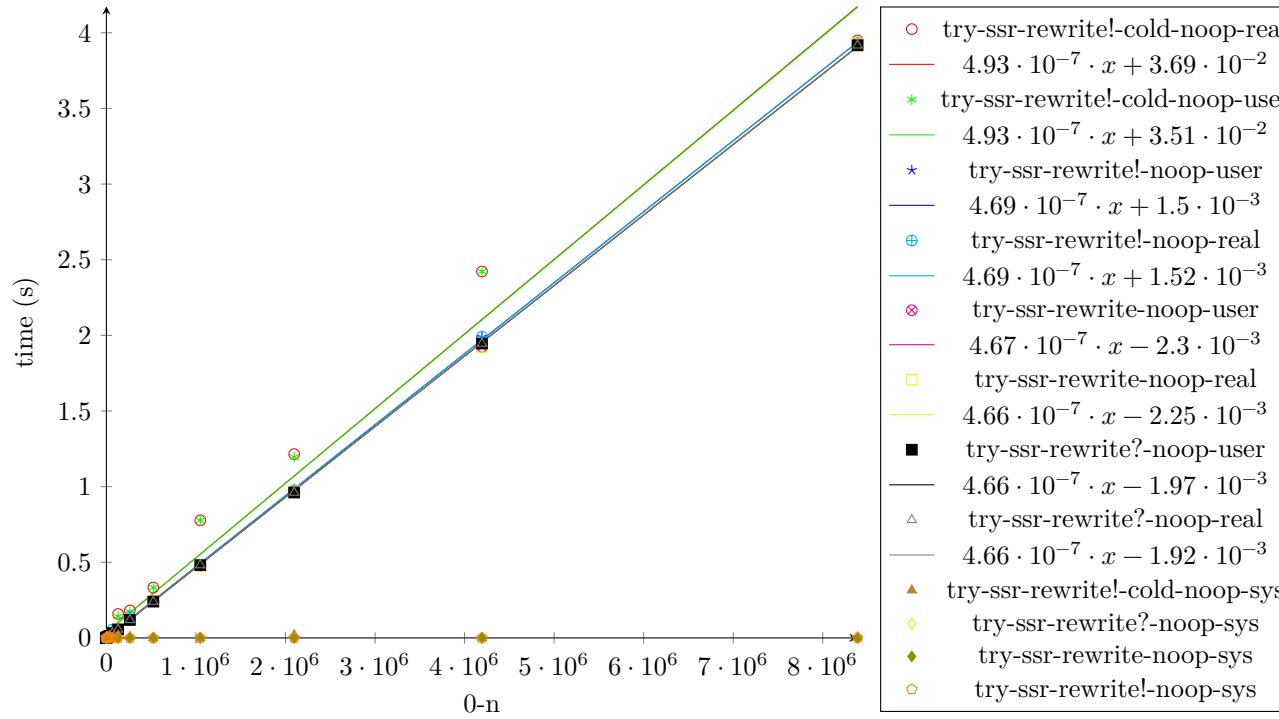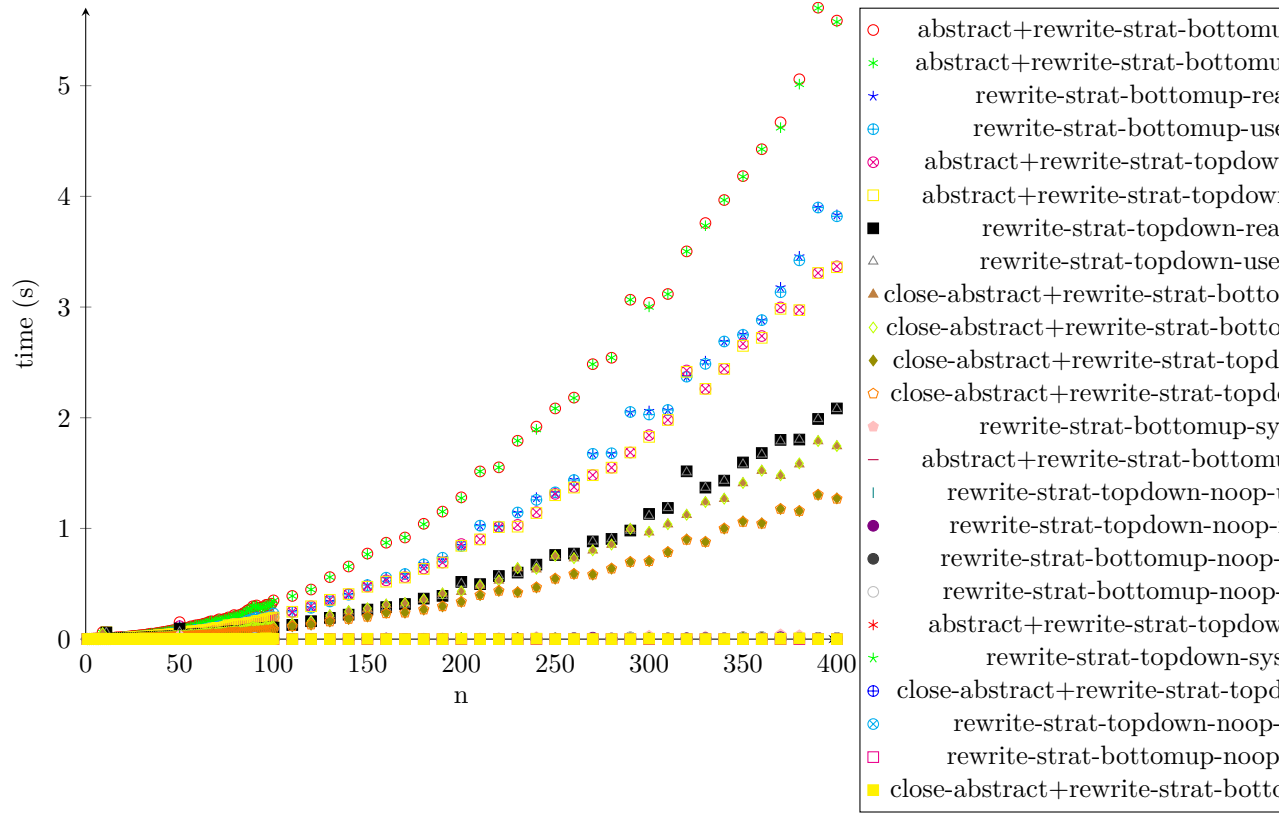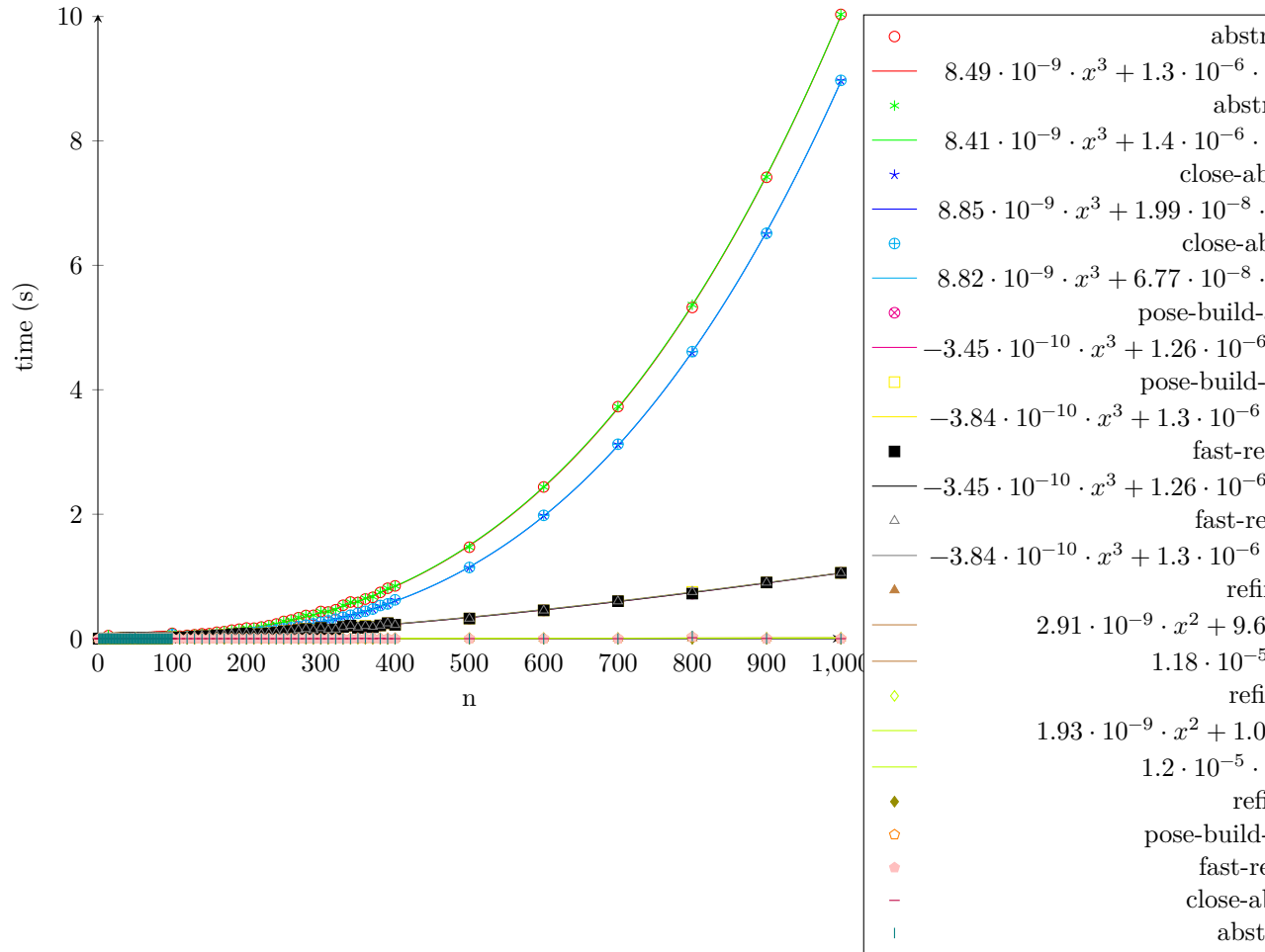Figure 10: timing-rewrite-repeated-app-rewrite-strat

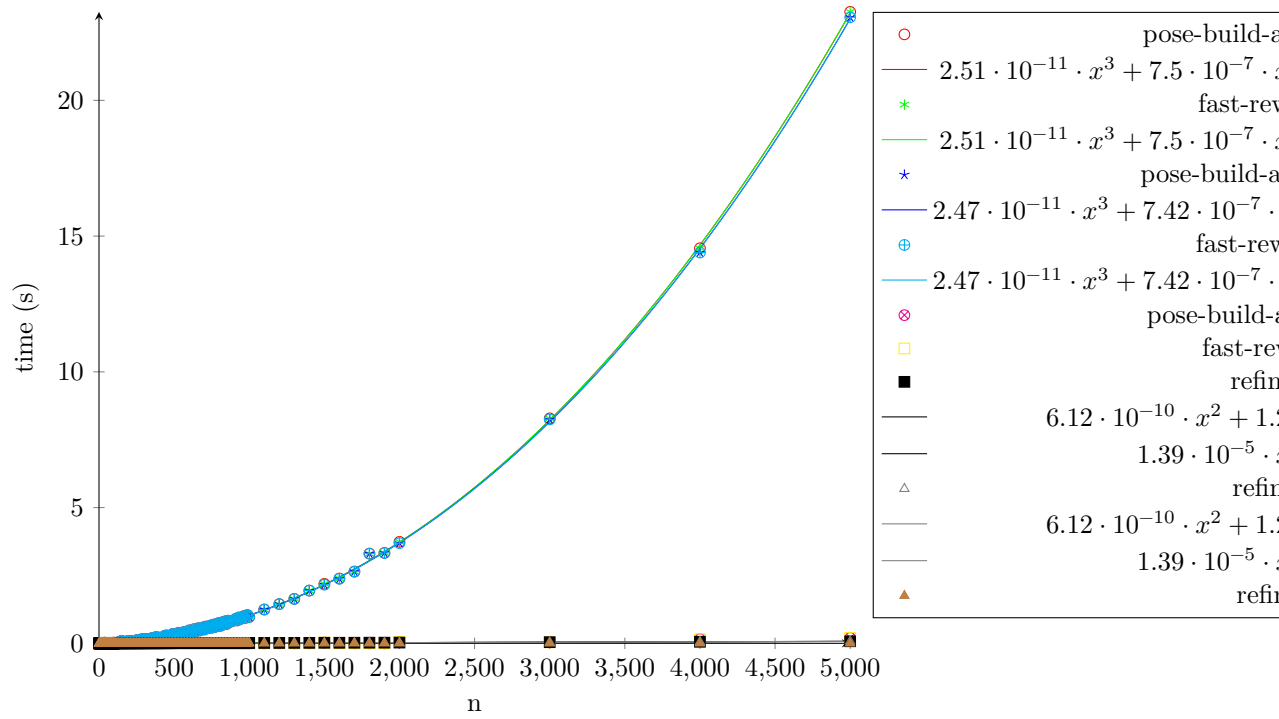Figure 11: timing-rewrite-repeated-app-fast-rewrite

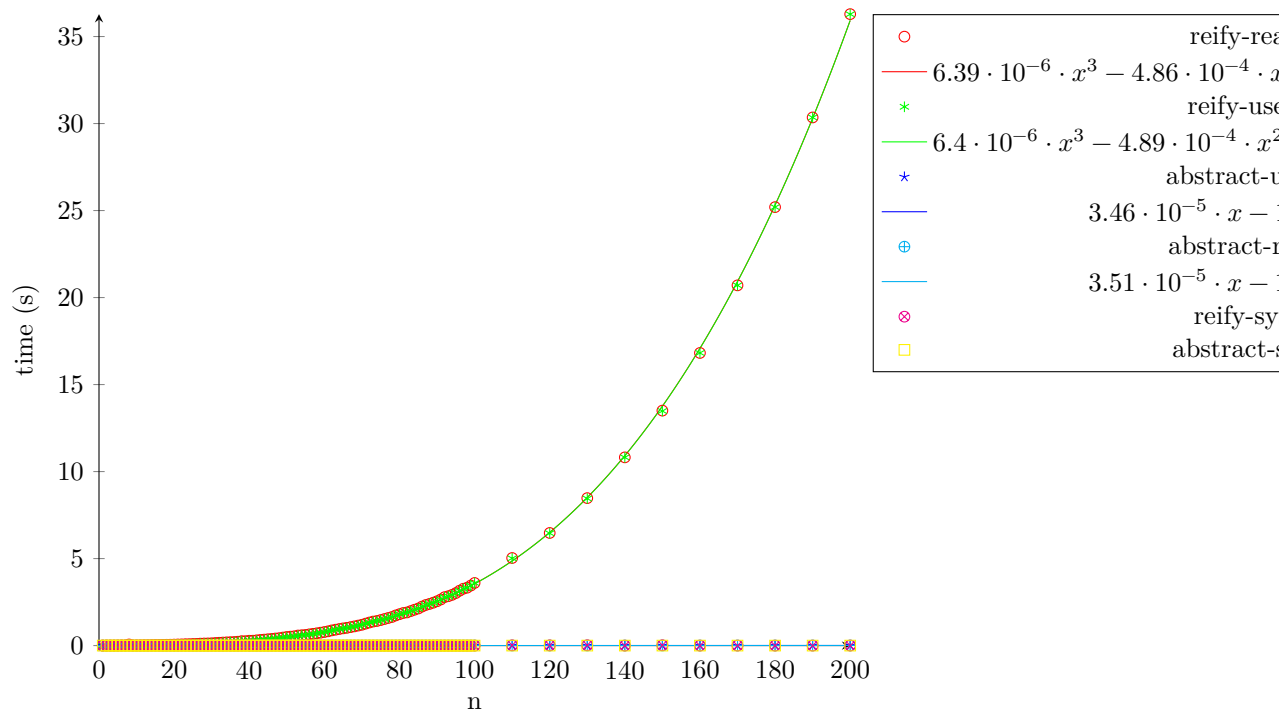Figure 12: timing-rewrite-repeated-app-fast-rewrite-no-abstract
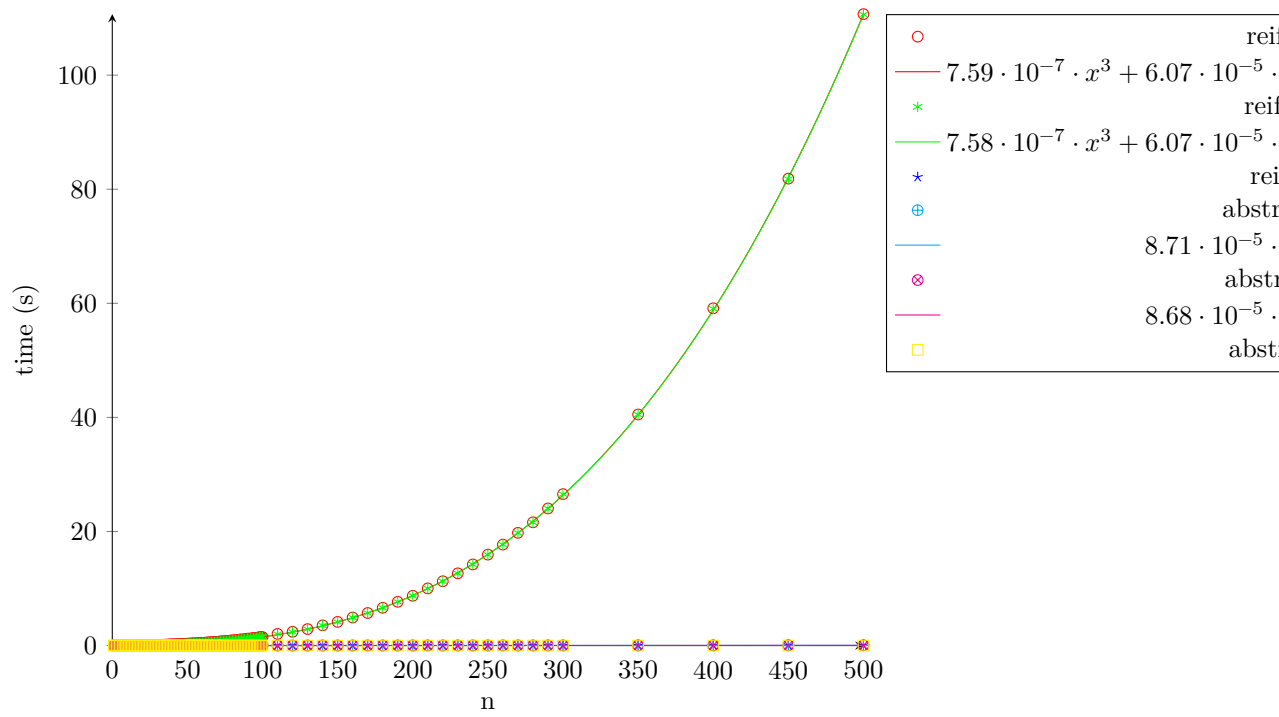
Figure 13: timing-typeclass-reification-let-in-HOAS

Figure 14: timing-typeclass-reification-let-in-PHOAS

time (s)

n

abstract-real
$2.71 \cdot 10^{-6} \cdot x^2 - 1.58 \cdot 10^{-3}$

abstract-user
$2.71 \cdot 10^{-6} \cdot x^2 - 1.58 \cdot 10^{-3}$

fast-rewrite-real
$2.43 \cdot 10^{-6} \cdot x^2 - 1.62 \cdot 10^{-3}$

fast-rewrite-user
$2.43 \cdot 10^{-6} \cdot x^2 - 1.63 \cdot 10^{-3}$

check-pf-cast-user
$3.82 \cdot 10^{-7} \cdot x^2 - 3.12 \cdot 10^{-4} \cdot x$

check-pf-cast-real
$3.82 \cdot 10^{-7} \cdot x^2 - 3.12 \cdot 10^{-4} \cdot x$

refine-user
$3.8 \cdot 10^{-7} \cdot x^2 - 3.24 \cdot 10^{-4} \cdot x$
$4.64 \cdot 10^{-4} \cdot x - 5.68$

refine-real
$3.79 \cdot 10^{-7} \cdot x^2 - 3.24 \cdot 10^{-4} \cdot x$
$4.64 \cdot 10^{-4} \cdot x - 5.68$

type-admit-user
$3.88 \cdot 10^{-7} \cdot x^2 - 3.06 \cdot 10^{-4} \cdot x$

type-admit-real
$3.88 \cdot 10^{-7} \cdot x^2 - 3.06 \cdot 10^{-4} \cdot x$

close-abstract-user
$2.82 \cdot 10^{-7} \cdot x^2 + 4.27 \cdot 10^{-5} \cdot x$

close-abstract-real
$2.81 \cdot 10^{-7} \cdot x^2 + 4.34 \cdot 10^{-5} \cdot x$

type-admit-cast-user
$3.56 \cdot 10^{-7} \cdot x^2 - 2.65 \cdot 10^{-4} \cdot x$

type-admit-cast-real
$3.56 \cdot 10^{-7} \cdot x^2 - 2.65 \cdot 10^{-4} \cdot x$

type-pf-cast-user
$3.33 \cdot 10^{-7} \cdot x^2 - 2.36 \cdot 10^{-4} \cdot x$

type-pf-cast-real
$3.33 \cdot 10^{-7} \cdot x^2 - 2.36 \cdot 10^{-4} \cdot x$

check-admit-cast-user
$3.41 \cdot 10^{-7} \cdot x^2 - 2.53 \cdot 10^{-4} \cdot x$

check-admit-cast-real
$3.41 \cdot 10^{-7} \cdot x^2 - 2.53 \cdot 10^{-4} \cdot x$

check-admit-user
$2.45 \cdot 10^{-7} \cdot x^2 - 1.15 \cdot 10^{-4} \cdot x$

check-admit-real
$2.45 \cdot 10^{-7} \cdot x^2 - 1.15 \cdot 10^{-4} \cdot x$

build-eval-thunk-real
$1.13 \cdot 10^{-4} \cdot x - 6.33$

build-thunk-real
$1.12 \cdot 10^{-4} \cdot x - 6.8$

build-eval-thunk-user
$1.12 \cdot 10^{-4} \cdot x - 6.95$

build-thunk-user
$1.12 \cdot 10^{-4} \cdot x - 7.48$

check-user