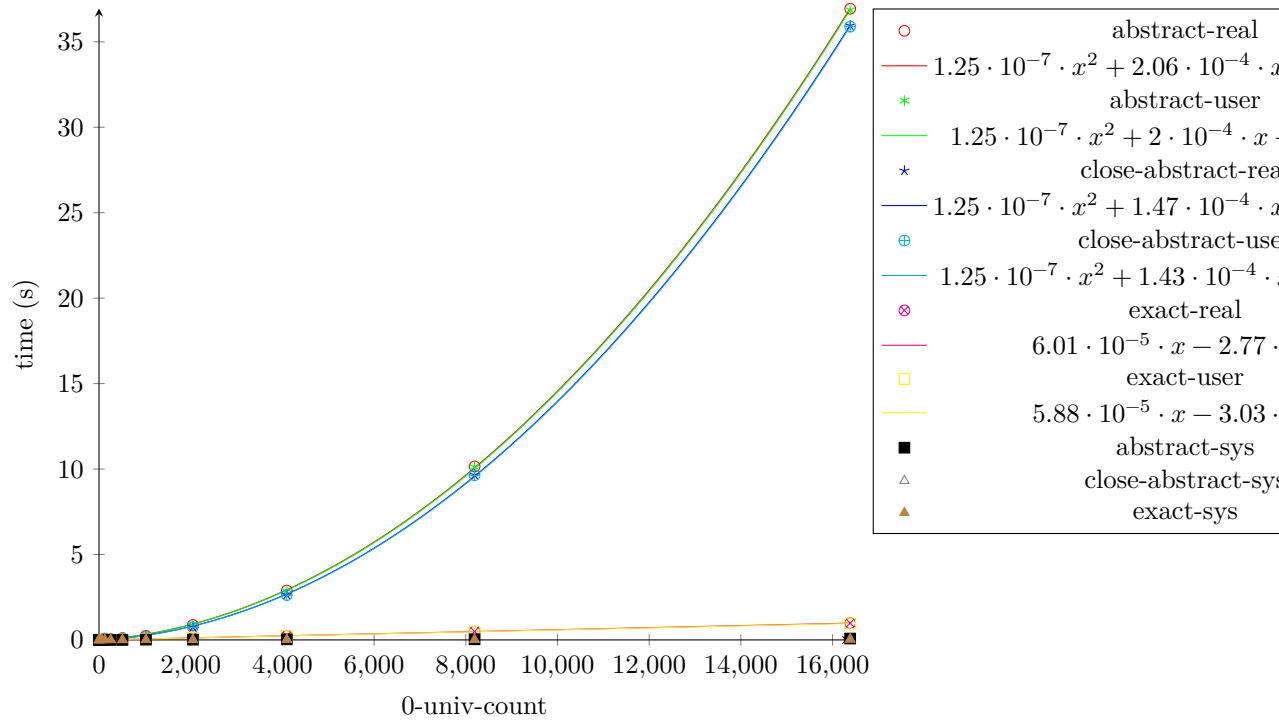Figure 1: timing-pattern

Figure 2: timing-n-polymorphic-universes param-1-n 0
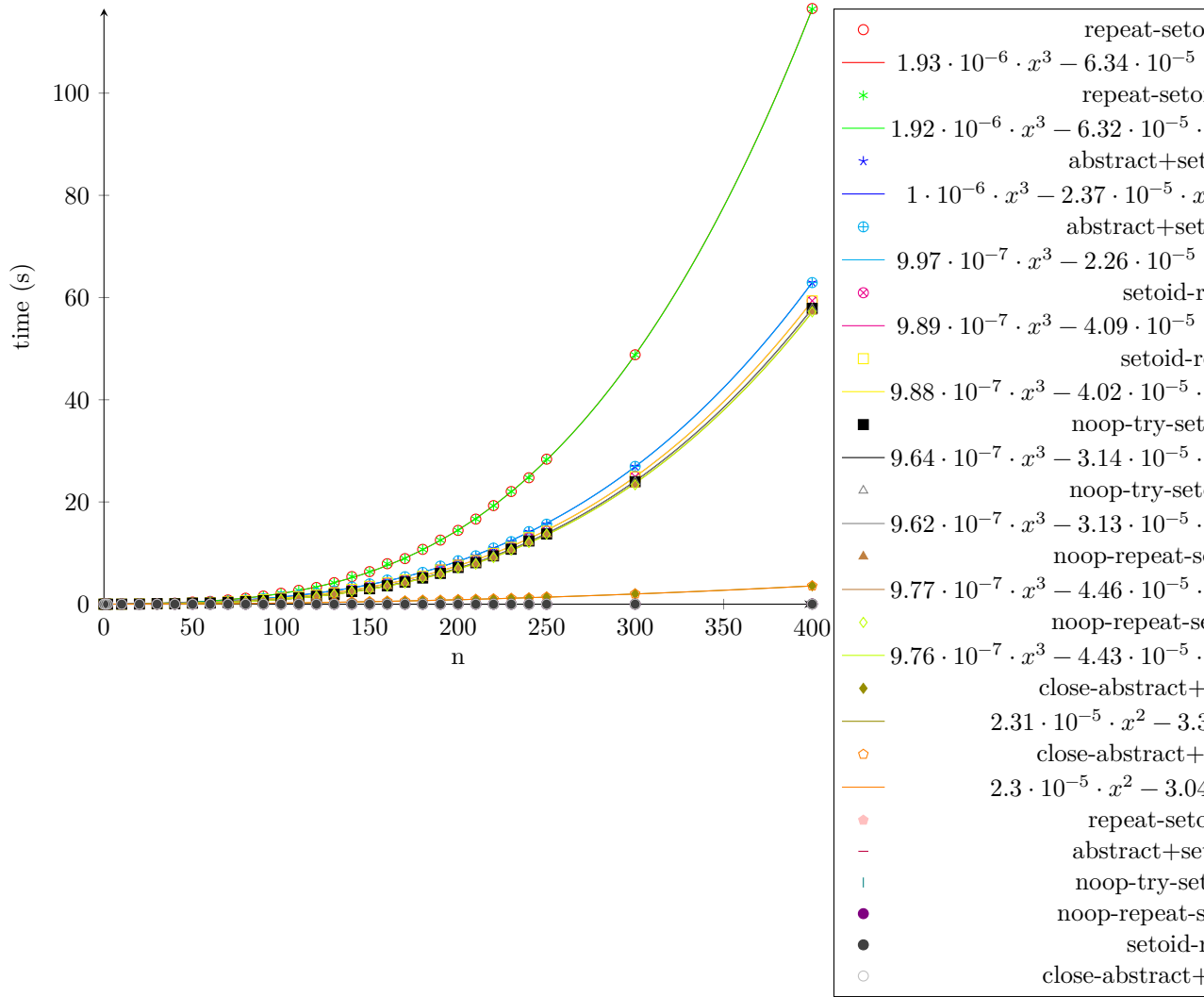
Figure 3: timing-repeat-setoid-rewrite-under-binders
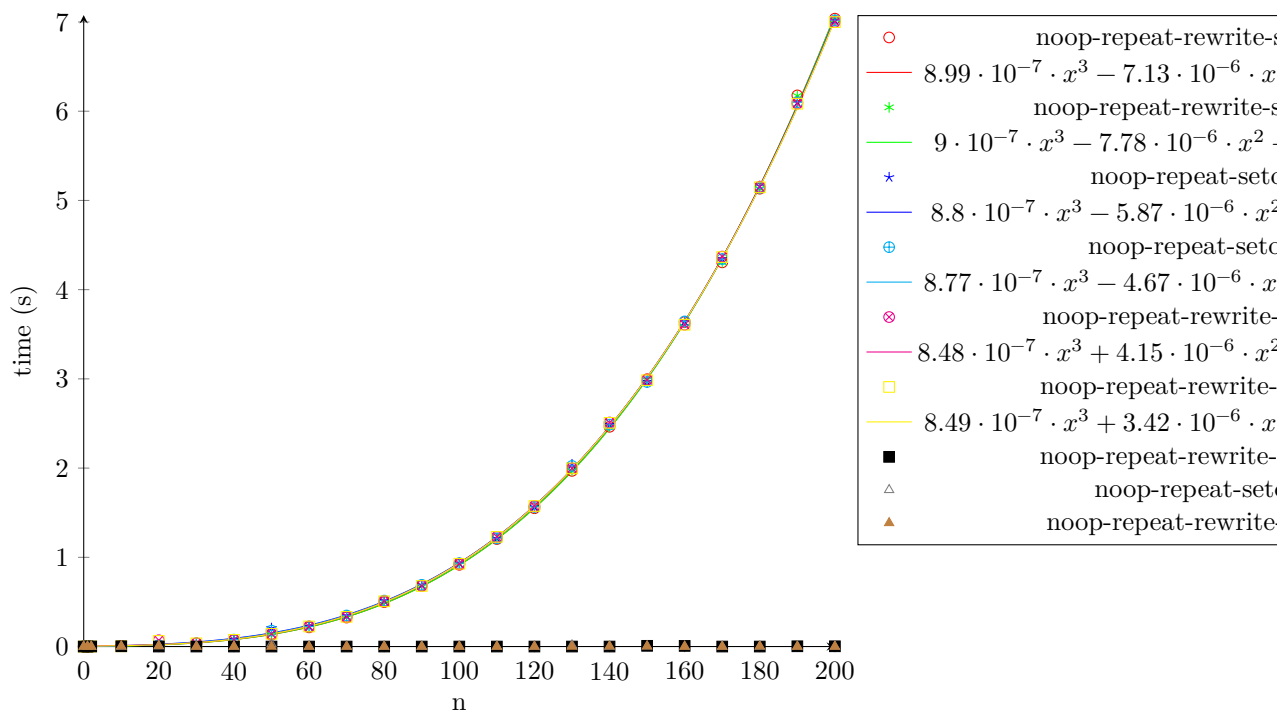
3

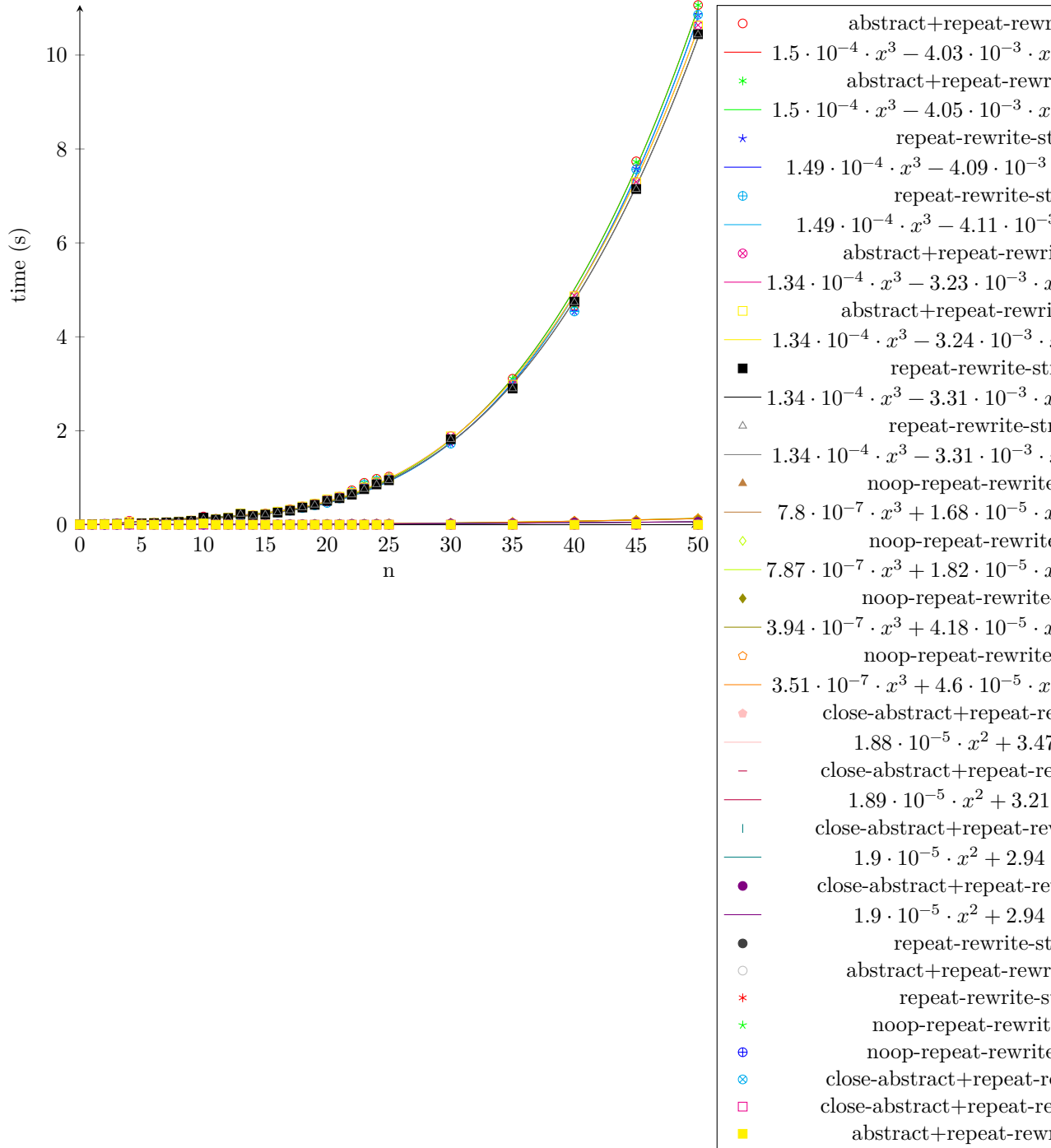Figure 4: timing-repeat-setoid-rewrite-under-binders-noop

4

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

time (s)

4

3.5

3

2.5

2

1.5

1

0.5

0

0   50   100   150   200   250   300   350   400

n

abstract+rewrite!-

$2.66 \cdot 10^{-5} \cdot x^2 - 6.18 \cdot 10^{-4} \cdot$

abstract+rewrite!-u

$2.65 \cdot 10^{-5} \cdot x^2 - 6.13 \cdot 10^{-4} \cdot$

abstract+autorewrit

$2.67 \cdot 10^{-5} \cdot x^2 - 7.48 \cdot 10^{-4} \cdot$

abstract+autorewrit

$2.67 \cdot 10^{-5} \cdot x^2 - 7.42 \cdot 10^{-4} \cdot$

rewrite!-real

$1.75 \cdot 10^{-5} \cdot x^2 - 6.98 \cdot 10^{-4} \cdot$

rewrite!-user

$1.75 \cdot 10^{-5} \cdot x^2 - 7 \cdot 10^{-4} \cdot x$

autorewrite-rea

$1.75 \cdot 10^{-5} \cdot x^2 - 7.74 \cdot 10^{-4} \cdot$

autorewrite-use

$1.75 \cdot 10^{-5} \cdot x^2 - 7.62 \cdot 10^{-4} \cdot$

close-abstract+autorew

$9.17 \cdot 10^{-6} \cdot x^2 + 8.06 \cdot 10^{-6} \cdot$

close-abstract+autorew

$9.17 \cdot 10^{-6} \cdot x^2 + 2.45 \cdot 10^{-6} \cdot$

close-abstract+rewrit

$8.98 \cdot 10^{-6} \cdot x^2 + 8.36 \cdot 10^{-5} \cdot$

close-abstract+rewrit

$8.98 \cdot 10^{-6} \cdot x^2 + 7.89 \cdot 10^{-5} \cdot$

abstract+rewrite!-

rewrite?-noop-re

$2.17 \cdot 10^{-5} \cdot x - 2.03 \cdot$

autorewrite-noop-u

$2.35 \cdot 10^{-5} \cdot x - 8.84$

autorewrite-noop-r

$2.3 \cdot 10^{-5} \cdot x - 8.42 \cdot$

abstract+autorewrit

rewrite?-noop-us

$2.2 \cdot 10^{-5} \cdot x - 3.13 \cdot$

close-abstract+autorew

autorewrite-sys

rewrite?-noop-sy

rewrite!-sys
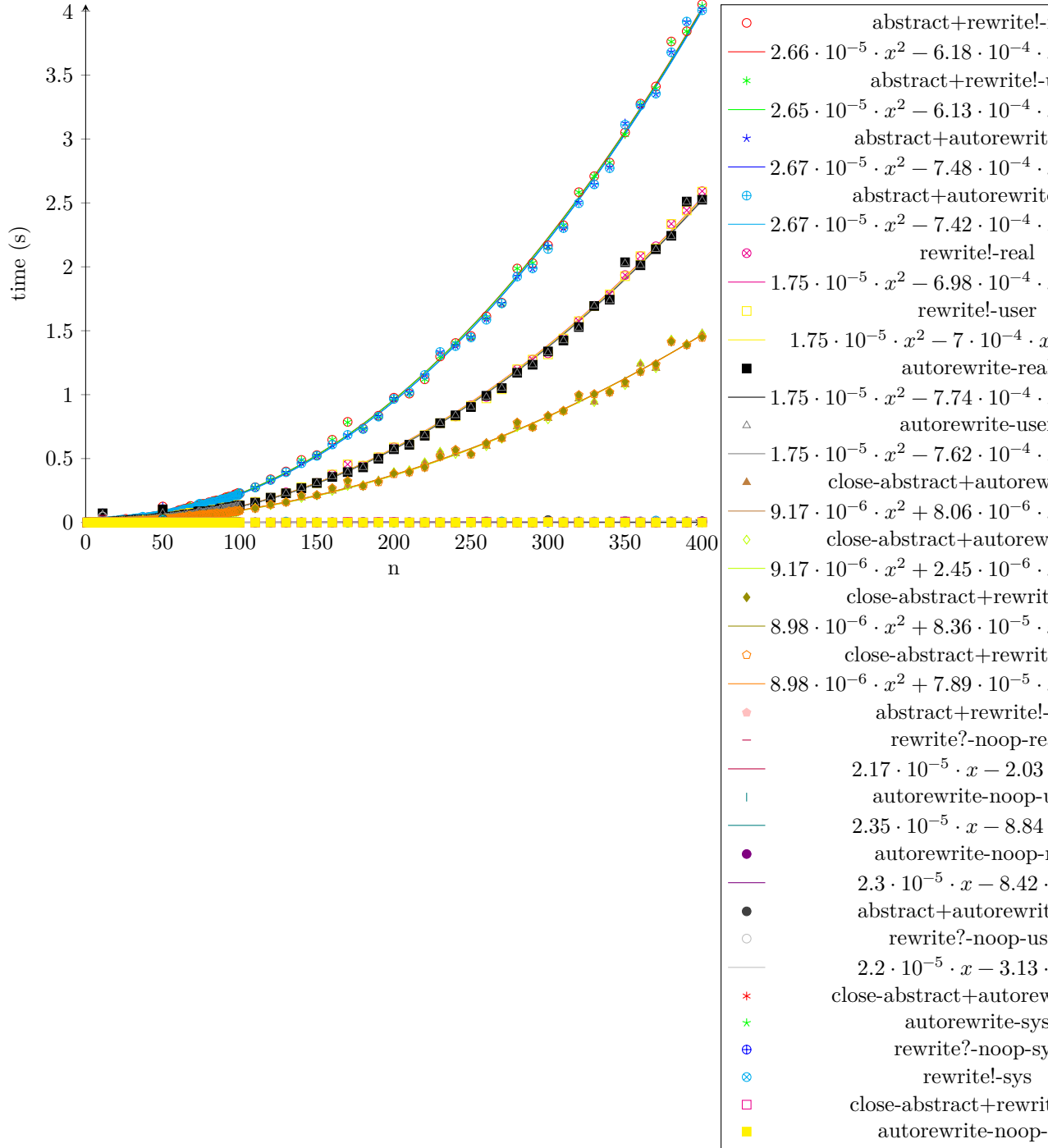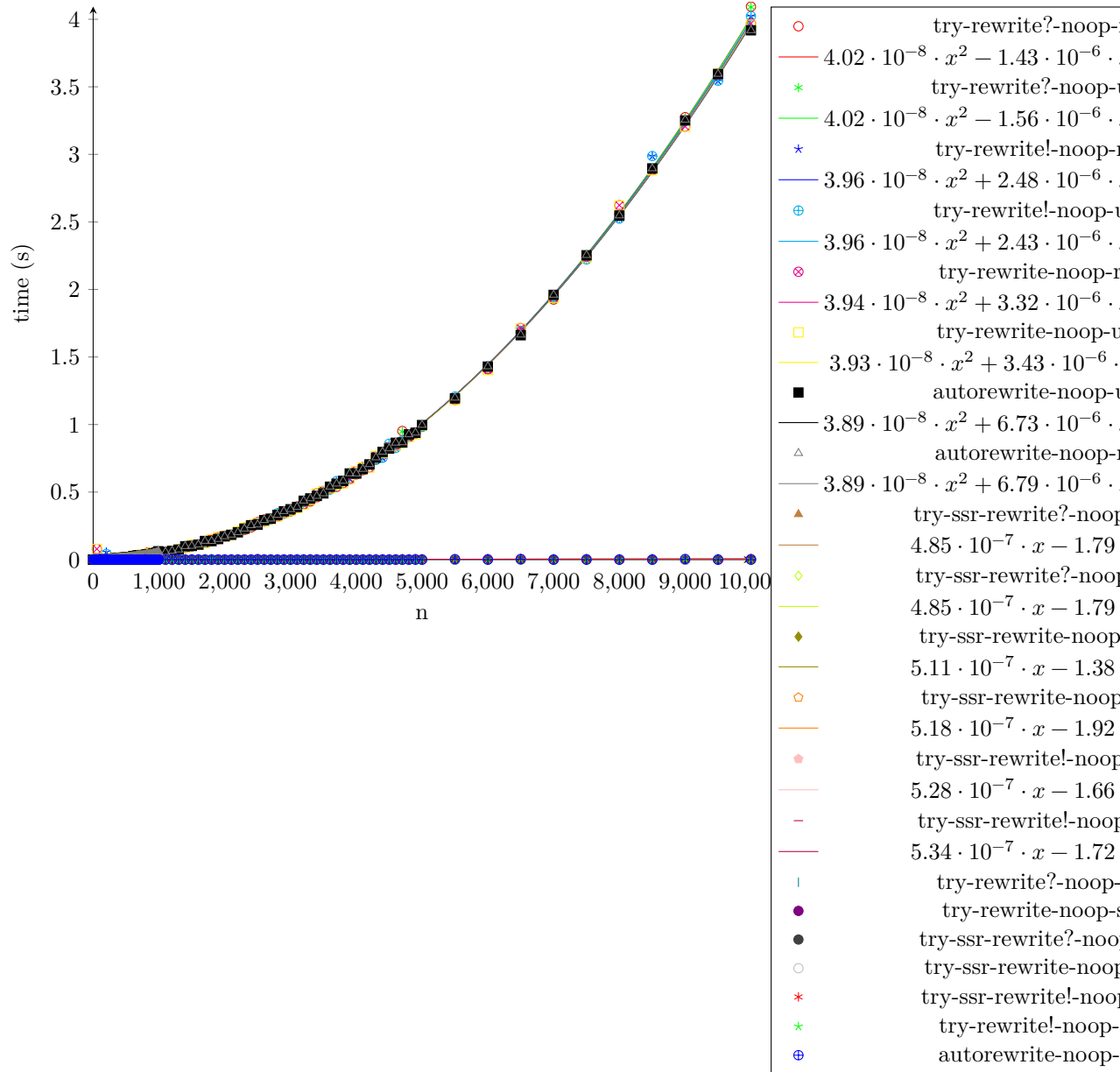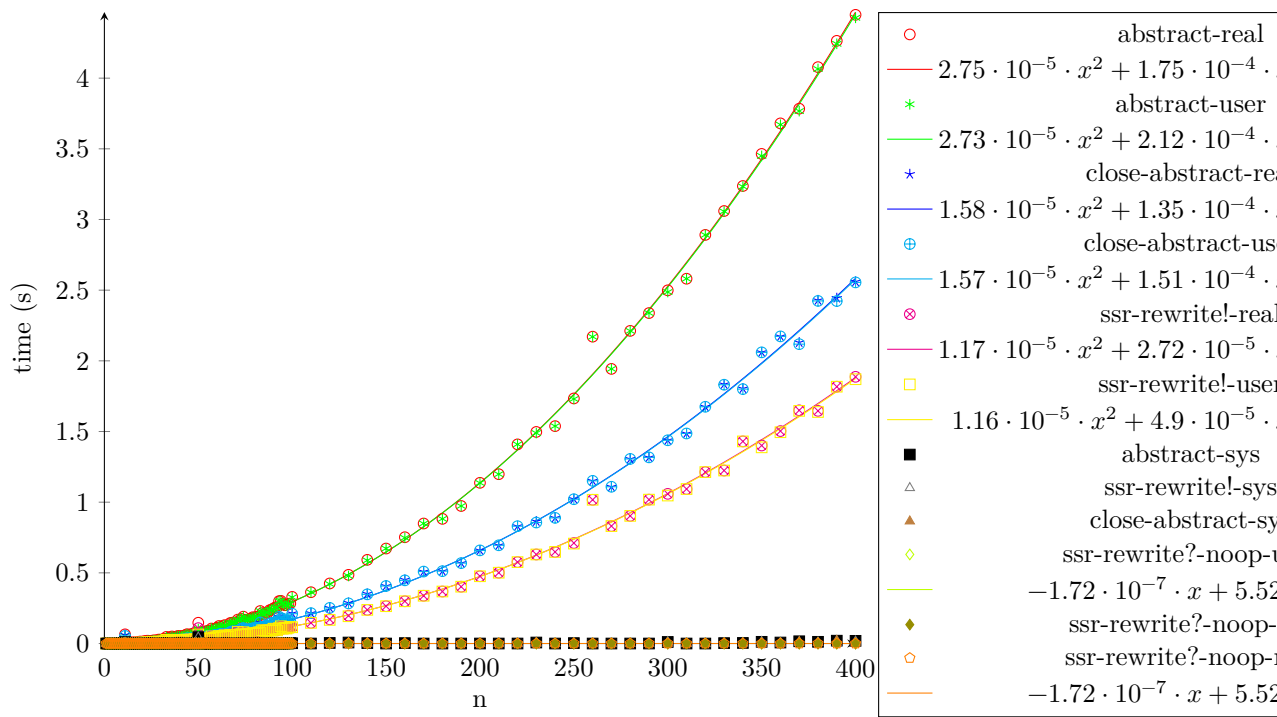
close-abstract+rewrit

autorewrite-noop-

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

6

Figure 7: timing-rewrite-repeated-app-autorewrite-noop
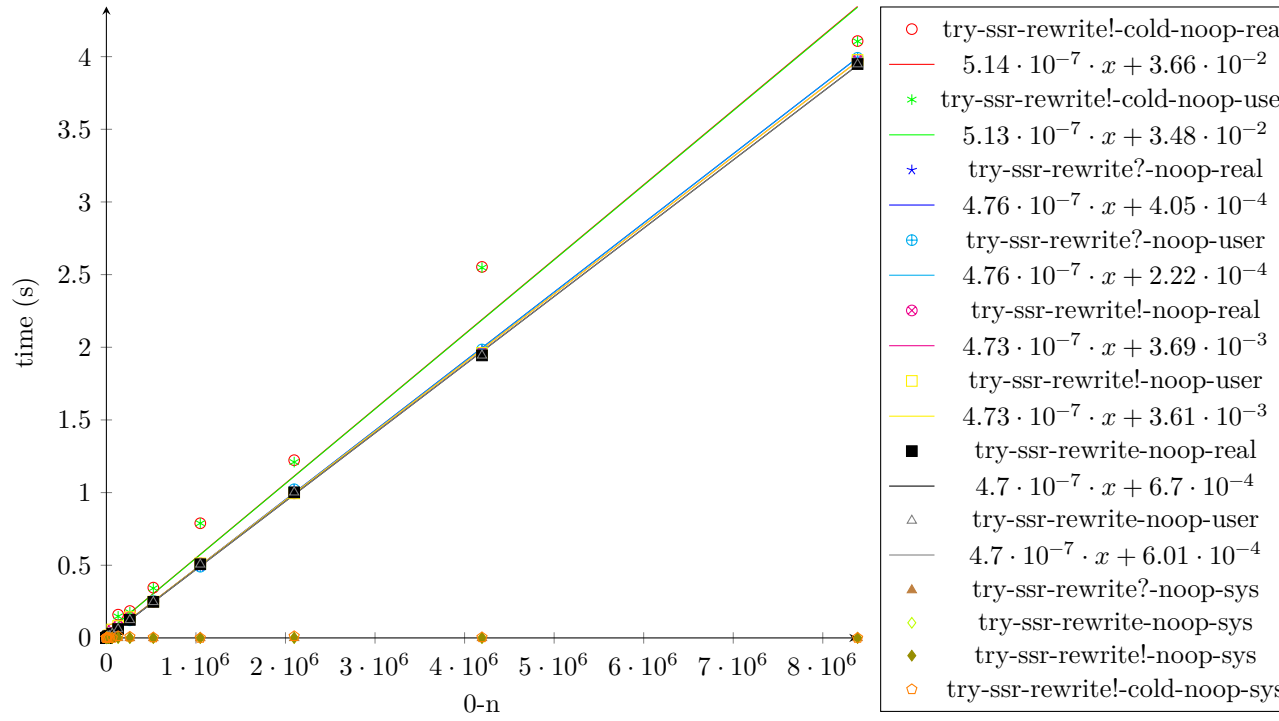
Figure 8: timing-rewrite-repeated-app-ssrrewrite

The plot legend contains the following entries:

- abstract-real
- $2.75 \cdot 10^{-5} \cdot x^2 + 1.75 \cdot 10^{-4} \cdot$
- abstract-user
- $2.73 \cdot 10^{-5} \cdot x^2 + 2.12 \cdot 10^{-4} \cdot$
- close-abstract-real
- $1.58 \cdot 10^{-5} \cdot x^2 + 1.35 \cdot 10^{-4} \cdot$
- close-abstract-user
- $1.57 \cdot 10^{-5} \cdot x^2 + 1.51 \cdot 10^{-4} \cdot$
- ssr-rewrite!-real
- $1.17 \cdot 10^{-5} \cdot x^2 + 2.72 \cdot 10^{-5} \cdot$
- ssr-rewrite!-user
- $1.16 \cdot 10^{-5} \cdot x^2 + 4.9 \cdot 10^{-5} \cdot$
- abstract-sys
- ssr-rewrite!-sys
- close-abstract-sys
- ssr-rewrite?-noop-u
- $-1.72 \cdot 10^{-7} \cdot x + 5.52$
- ssr-rewrite?-noop-
- ssr-rewrite?-noop-
- $-1.72 \cdot 10^{-7} \cdot x + 5.52$

8

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

The figure legend contains the following entries (text truncated at right edge):

- abstract+rewrite-strat-bottomu...
- abstract+rewrite-strat-bottomu...
- rewrite-strat-bottomup-rea...
- rewrite-strat-bottomup-use...
- abstract+rewrite-strat-topdow...
- abstract+rewrite-strat-topdown...
- rewrite-strat-topdown-rea...
- rewrite-strat-topdown-use...
- close-abstract+rewrite-strat-botto...
- close-abstract+rewrite-strat-botto...
- close-abstract+rewrite-strat-topd...
- close-abstract+rewrite-strat-topd...
- abstract+rewrite-strat-bottomu...
- rewrite-strat-bottomup-sy...
- abstract+rewrite-strat-topdow...
- rewrite-strat-topdown-sys...
- rewrite-strat-bottomup-noop-...
- rewrite-strat-bottomup-noop-...
- rewrite-strat-topdown-noop-...
- rewrite-strat-topdown-noop-...
- close-abstract+rewrite-strat-topd...
- rewrite-strat-topdown-noop-...
- rewrite-strat-bottomup-noop...
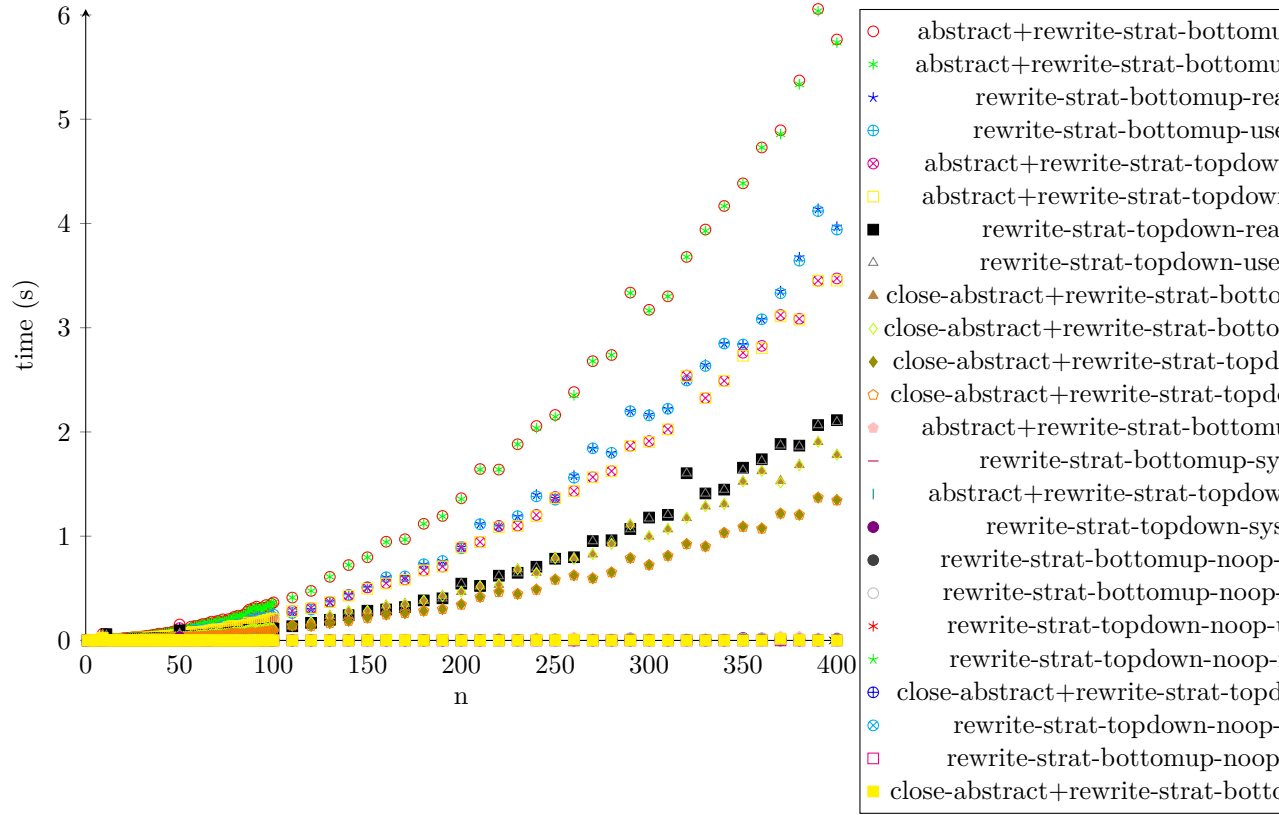- close-abstract+rewrite-strat-botto...
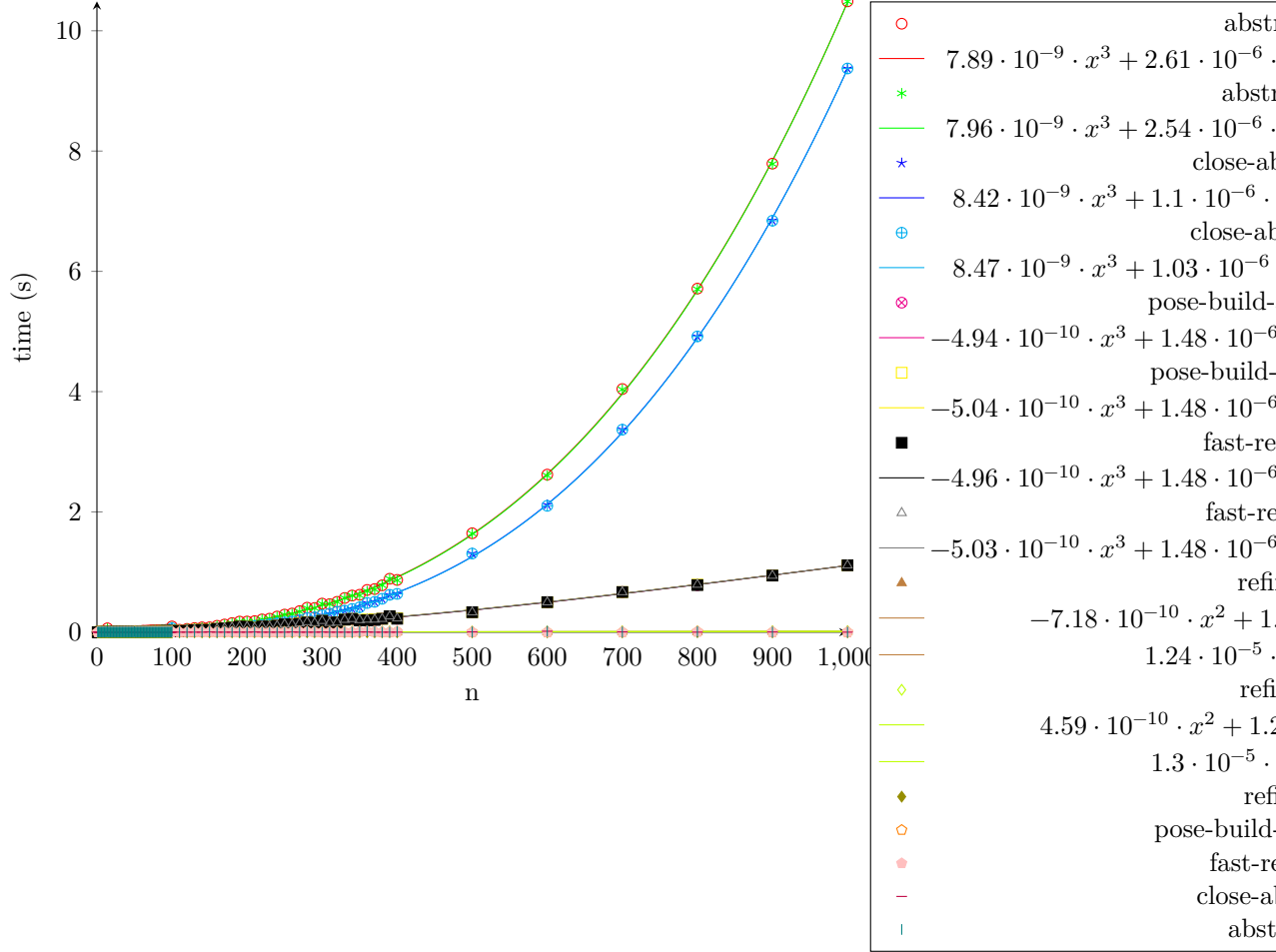
Figure 10: timing-rewrite-repeated-app-rewrite-strat

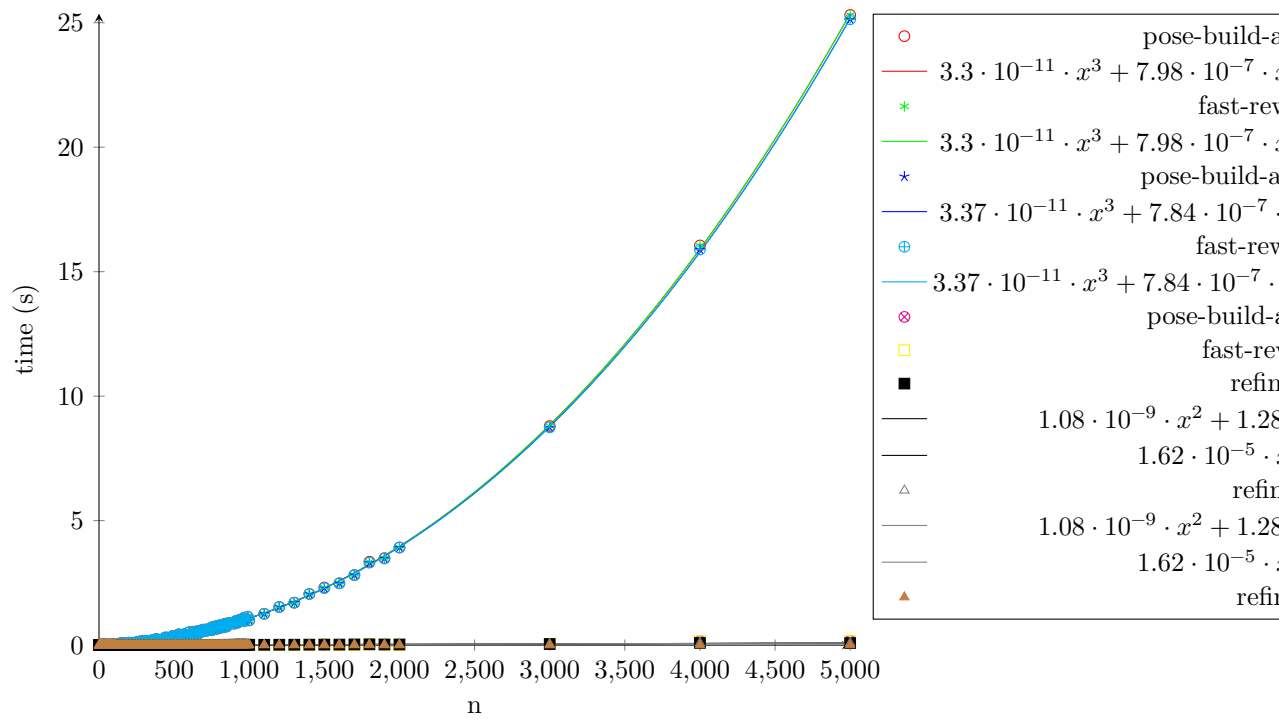Figure 11: timing-rewrite-repeated-app-fast-rewrite

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