# Miscellaneous utilities

## Marc Coiffier

# Contents

Reminder: all builtin functions can be found documented here

#### **Exporting definitions**

```
'defX { 1 dupn swap def export } def 'defX export
'synonym { $ def } defX
```

#### Navigating the environment

```
'show-context {
   "" hypotheses
   { dup variable type swap "%s : %v\n%s" format } each
   print pop
} defX
'showdef { pattern-index 1 swapn swap index-insert set-pattern-index } defX
'vis { show-context "-----\n" printf show-stack } defX
```

#### Binders and contexts

```
'binder { 2 shaft { ${ swap } -> ${ } ${ } } defX
'funs { swap reverse { swap '! $ binder } each exec } defX
'prods { swap reverse { swap '? $ binder } each exec } defX
'# { swap cons } defX
```

## Constructing typed terms

```
'Type { 0 universe pull } defX
```

```
'foralls { { extro-forall } swap times } defX
'lambdas { { extro-lambda } swap times } defX
'applys { range { pop apply } each } defX
'applyl { { swap apply } each } defX
'recursor { dup 2 shaft -> variable mu ! } defX
'( '[ $ defX
') { ] applyl } defX
Managing the type environment
'-> { dup 1 swapn swap intro { ,{ dup } variable pull } def } defX
'! 'extro-lambda $ defX
'? 'extro-forall $ defX
Defining inductive constructors
'defconstr { 1 dupn swap showdef def } defX
Acting on list as stacks
'in-list {
 swap {
    ,{ } set-stack ${ }
   { ,{ ,{ stack } } set-stack ,{ stack } } exec
 } exec
} defX
```