

# Nominal C Unification

Seminário de Computação - UnB

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## 1. Nominal C Unification

Definition of the Problem

A Nominal C Unification Algorithm

Examples

# Nominal C Unification

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# Nominal C Unification

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## Definition of the Problem

## Definition (Unification Problem)

A unification problem is a pair  $\langle \Delta, P \rangle$ , where  $\Delta$  is a freshness context and  $P$  is a finite set of equations  $(s \approx_{\alpha}^? t)$  and freshness constraints  $(a \#^? s)$ .

# Solution to a Unification Problem

**Definition (Solution to a Unification Problem)**

TO DO.

## Definition (More General Solution)

TO DO

# Nominal C Unification

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## A Nominal C Unification Algorithm



Hi

# An Algorithm for Nominal C-Unification: General Idea I

```
1: procedure UNIFY( $\Delta, \sigma, UnPrb, FxPntEq$ )
2:   if null( $UnPrb$ ) then
3:     return list( $(\Delta, \sigma, FxPntEq)$ )
4:   else
5:      $t = \text{head}(UnPrb)[1]$ 
6:      $s = \text{head}(UnPrb)[2]$ 
7:     if ( $s == \pi \cdot X$ ) and ( $X$  not in  $t$ ) then
8:        $\sigma_1 = \{X \rightarrow t\}$ 
9:        $\sigma' = \sigma_1 \cup \sigma$ 
10:       $(\Delta', \text{bool1}) = \text{appSub2Ctxt}(\sigma_1, \Delta)$ 
11:       $UnPrb' = UnPrb\sigma_1 \cup FxPntEq\sigma_1$ 
12:     else if huuuuuHldjklasf then
```

## An Algorithm for Nominal C-Unification: General Idea II

```
13:      Hi
14:  else if Hl then
15:      Hi
16:  else if Hl then
17:      Hi
18:  else
19:      Hey
20:
```

TO DO

TO DO

TO DO

TO DO

# Nominal C Unification

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## Examples



## Example 1

TO DO

## Example 2

TO DO