Towards a fixed-point approach to Nominal Disunification

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Abstract

We will present the nominal abstract syntax [1] following the fixed-point constraints approach [2], which is convenient for dealing with α-equivalence modulo equational theories involving commutative operators. Then, we will present a nominal unification algorithm via fixed-point constraints and introduce our current work on the extension of nominal disunification via freshness to this fixed-point approach, the result obtained so far and the prospects of future work.

References

[1] Murdoch James Gabbay and Andrew Pitts A New Approach to Abstract Syntax Involving Binders, *14th Annual IEEE Symposium on Logic in Computer Science, Trento, Italy, July 2-5, 1999*, pages 214-224, IEEE Computer Society, 1999.

[2] Mauricio Ayala-Rincón, Maribel Fernández and Daniele Nantes-Sobrinho. On Nominal Syntax and Permutation Fixed Points. *Log. Methods Comput. Sci.* volume 16 (1), 2020.

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