Logic and Computation

Anti-Unification on Terms With Different Types.

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17h10 - 17h40

Math Department- Mini Auditorium

Abstract.

Anti-unification is the problem of expressing the most common structure between two given expressions. The different problems of anti-unification depend on how such commonalities are established and structured. In this talk the focus is in the universe of Typed Lambda Terms, more precisely, in how to identify the common structures of expressions that may have different types. First, a fast presentation of the anti- unification problem for inputs with the same type will be given, with the propose of highlighting the difference between the standard problem and well-known more general problems. Secondly, some preliminar ideas about how to solve anti-unification for terms with different types will be discussed. The presentation will use several examples and illustrations.

References

[1] Hendrik Pieter Barendregt, Wil Dekkers, and Richard Statman. Lambda Calculus with Types. Cambridge University Press, 2013. ISBN 978-0-521-76614-2.

[2] David M. Cerna and Temur Kutsia. A generic framework for higher-order generalizations. In Herman Geuvers, editor, 4th International Conference on Formal Structures for Computation and Deduction, FSCD 2019, June 24-30, 2019, Dortmund, Germany, volume 131, pages 10:1–10:19, 2019. doi:10.4230/LIPICS.FSCD.2019.10.

[3] Benjamin C. Pierce. Types and programming languages. MIT Press, 2002. ISBN 978-0-262-16209-8.