

# Representing Martin-Löf's Type Theory in Barendregt's $\lambda$ -cube

Frank Rosemeier  
FernUniversität  
D-58084 Hagen  
Germany

e-mail: `frank.rosemeier@fernuni-hagen.de`

ABSTRACT.

It is considered how Martin-Löf's type theory can be represented in Barendregt's  $\lambda$ -cube and how it can be implemented in proof assistants like Alf, Agda/Alfa, Coq, Isabelle/Isar, Lego or Yarrow. Such a representation may be used to formalize Bishop style constructive mathematics as well as to implement it.

*Key words.* Martin-Löf's type theory, Barendregt's  $\lambda$ -cube, proof assistants, constructive mathematics.

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