

Why is equality interesting?

Ambrus Kaposi

In Martin-Löf's type theory, there are two notions of equality: definitional equality and propositional equality. The former is a judgement kind and expresses computation, the latter is a type. Some types are propositions. Voevodsky's univalence axiom internalises representation independence in type theory and implies that isomorphic structures are equal. It also implies that equality is not a proposition in general. In this talk I will describe ongoing work towards a type theory where univalence holds by definition.