

Our Algebra seminar will continue on Thursday, **October 25, at 13.00 in M5** by the talk

**S. Henry**

### **Transfinite constructions in infinity categories**

I'll present an adaptation in infinity categorical context of some classical "transfinite constructions" in category theory: the construction of the free algebras for a (pointed, well pointed) endofunctor and the construction of colimits in the category of algebras for a monad. A large part of the talk will be a basic introduction to infinity category theory (quasi-category theory) and to the Riehl-Verity theory of infinity-monads. The goal is mostly to give some example of what it look like to works with infinity categories and how it changes from ordinary category theory.