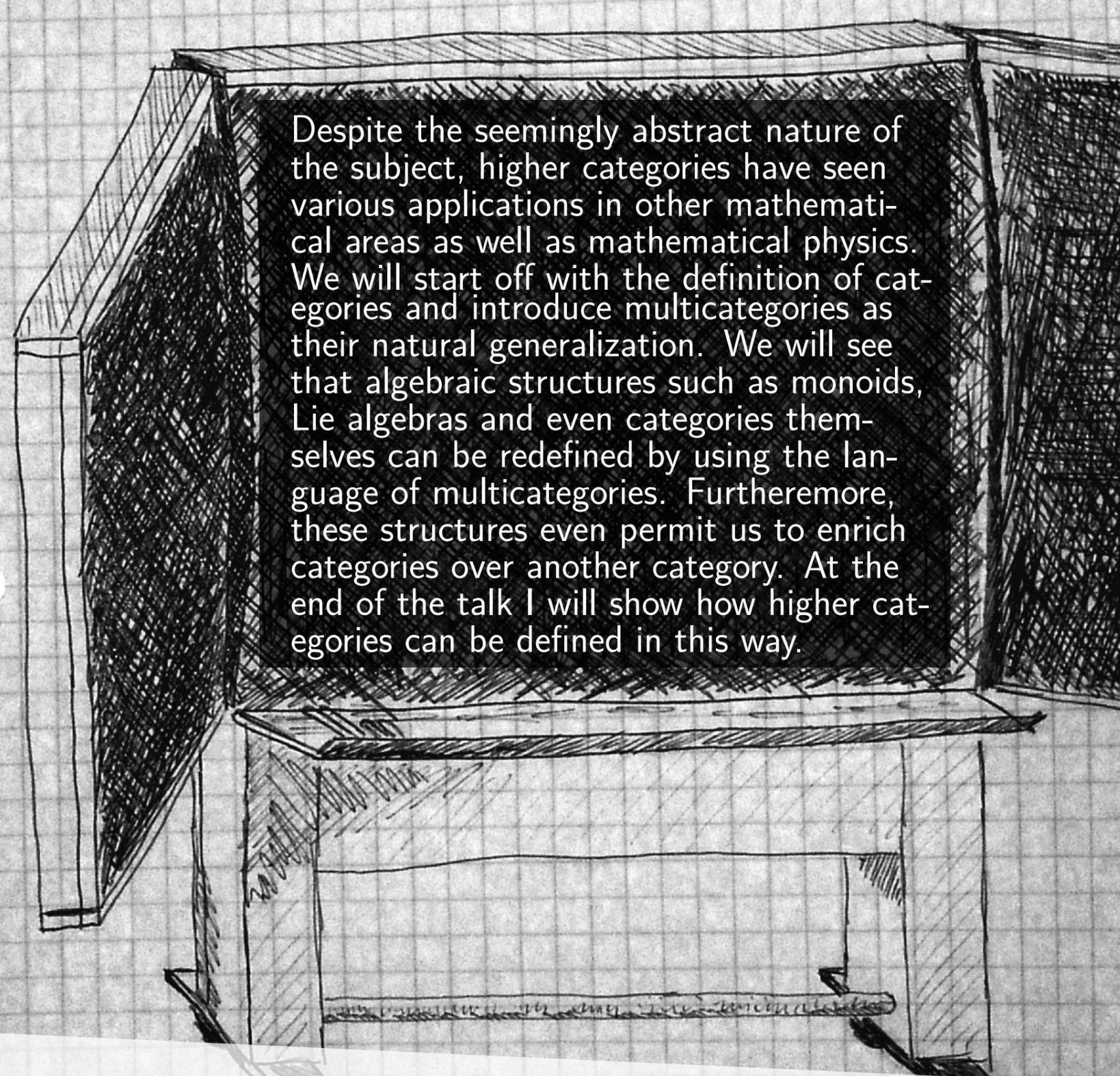


# PhD Colloquium

April 5<sup>th</sup> 2017, 15:00–15:45

Sky Lounge

**An Introduction to Multicategories and Higher Categories  
by Hongyi Chu**



Despite the seemingly abstract nature of the subject, higher categories have seen various applications in other mathematical areas as well as mathematical physics. We will start off with the definition of categories and introduce multicategories as their natural generalization. We will see that algebraic structures such as monoids, Lie algebras and even categories themselves can be redefined by using the language of multicategories. Furthermore, these structures even permit us to enrich categories over another category. At the end of the talk I will show how higher categories can be defined in this way.

**Master Students, PhD Students, Postdocs  
and other members of the Faculty of  
Mathematics are cordially invited!**

Organised by the Vienna Doctoral School of Mathematics.