

# 國立中山大學應用數學系

## 學術演講

講者：何孟哲 博士 (Purdue University)  
講題：Groups, Logic, and Languages  
時間：2020/3/2 (Monday) 15:10 ~ 16:00  
地點：理學院四樓理 SC 4009-1 室  
茶會：16:00 於理 SC 4010 室 (系辦公室)

### Abstract

The interplay between group theory and logic had played a crucial role in both areas for many decades. The most famous questions in this intersection is the word problem proposed by Dehn in 1911. The word problem is shown to be unsolvable in general by Novikov in 1955. However, as a logician, the (un)solvability of a decision problem is only the beginning. For an unsolvable problem, computable structure theory gives a framework to study “how unsolvable” the problem is. On the other hand, for a solvable problem, formal language theory provides a way to study its complexity. We will survey various past and current results as well as some work in progress in these directions. In particular, we will study the linguistic complexity of word problems and geodesic representatives in finitely-generated groups.

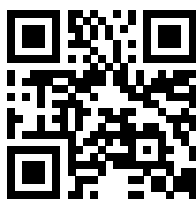
中山大學應用數學系

敬請公告！歡迎參加！

應用數學系：<http://math.nsysu.edu.tw>

校園地圖：[http://math.nsysu.edu.tw/var/file/183/1183/img/779/nsysu\\_math\\_map.jpg](http://math.nsysu.edu.tw/var/file/183/1183/img/779/nsysu_math_map.jpg)

交通資訊：<https://www.nsysu.edu.tw/p/412-1000-4132.php?Lang=zh-tw>



應用數學系



校園地圖



交通資訊