



HARVARD UNIVERSITY  
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# Mathematical Picture Language Seminar



**Tuesday,**  
**April 25, 2023**  
**9:30 a.m. Boston time**  
**Jesse Peterson**  
Vanderbilt University

## Amenability and von Neumann algebras

**Abstract:** Amenability for groups is a concept that was first introduced by von Neumann in 1929 to provide an explanation of the Banach-Tarski paradox. The concept has since been exported to many different areas of mathematics and continues to hold an important position in fields such as group theory, ergodic theory, and operator algebras. In the area of von Neumann algebras, which von Neumann introduced a year later in 1930, the concept plays a fundamental role, and the classification of amenable von Neumann algebras by Connes and Haagerup is considered a touchstone of the field. In this talk, I will give a survey of amenability in von Neumann algebras, with special emphasis on recent uses of the concept and highlighting some of my own contributions.



**Zoom QR Code & Link:**

<https://harvard.zoom.us/j/779283357?pwd=MitXVm1pYUIJVzZqT3lwV2pCT1ZUQT09>

<https://mathpicture.fas.harvard.edu/seminar>