## 17 Oxford Street Cambridge, MA 02138



## Tuesday, November 17, 2020, at 10:00 (Boston) 15:00 (UK/Eire) 16:00 (C.Europe) 23:00 (China) Mathematical Picture Language Seminar

Zoom at: <a href="https://harvard.zoom.us/j/779283357?pwd=MitXVm1pYUIJVzZqT3lwV2pCT1ZUQT09">https://harvard.zoom.us/j/779283357?pwd=MitXVm1pYUIJVzZqT3lwV2pCT1ZUQT09</a>

## Mikhlin type Fourier multipliers on free groups and free products of von Neumann algebras

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Abstract. Consider a free group and its group von Neumann algebra  $\mathfrak{A}$ . Finding criteria on the boundedness or complete boundedness of multipliers on the  $L_p(\mathfrak{A})$  is a major subject of analysis on free groups. A remarkable result of Uffe Haagerup and his co-authors characterizes the completely bounded radial Fourier multipliers on  $\mathfrak{A}$  (i.e., for  $p=\infty$ ). However, the case of finite  $p\neq 2$  is a considerably more delicate matter, as it is for abelian groups. One of very few existing significant results is that on the free Hilbert transform recently proved by Tao Mei and Eric Ricard. In this talk I will present some new work, joint with these authors. A more-detailed abstract can be found in the seminar announcement at https://mathpicture.fas.harvard.edu/seminar.

