

Functional Analysis and Mathematical Physics
Interdepartmental Research Group
(FAMP)
Colloquium Series
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*Talk 2: Area Laws for the Entanglement Entropy
in the XXZ Spin Chain*

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Abstract

In this talk, we give a physical motivation why so-called Area Laws for the Entanglement Entropy are considered as indicators of Many-Body Localization (MBL). As it turns out, the difference between localization and delocalization seems to lie within a subtle logarithmic term. I will then present my results on the Entanglement Entropy for the Heisenberg XXZ Model, which is the first interacting many-particle model, for which MBL phenomena have been rigorously shown.

Friday, February 25, 11:00 AM – 12:00 PM (PST)

Online via Zoom at
<https://fresnostate.zoom.us/j/5233106532>