

Department of Mathematics, BGU

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# Model theory working seminar

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*On Wednesday, November ,19 2025*

*At 12:10 – 14:00*

*In Room 4*

Roei Shirfii

will talk about

## **Categorical logic and Makkai's conceptual completeness theorem**

Abstract: The conceptual completeness theorem answers a fundamental question: given the category of models of a theory, how much of the theory's syntax can be recovered? After a gentle introduction to categorical logic and classifying categories, I will explain Makkai's remarkable result showing that the semantic category, together with ultraproduct-preserving functors, determines the theory up to definitional equivalence.