: 16:30–17:30

: G202 G 2

: Crystal Hoyt (, Weizmann)

: Representation theory of Lie superalgebras
(Lie)

: What are the possible solutions of the following equation?

$$XY + YX = 1$$

What are the solutions if we allow the variables X and Y to be matrices? It was through this question that I was first introduced to mathematical research and Lie superalgebras as an undergraduate, after having completed only a linear algebra course. The representation theory of Lie superalgebras is a relatively new area of mathematics, where there are still many open fundamental problems. In my Ph.D. dissertation I settled one of these: the classification of Kac-Moody superalgebras of finite growth, which had remained open for twenty years. In this talk, we will present basic definitions and examples. We will give a partial survey of the history of the field, discussing some important results.

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