

Abstract

**On the non-existence of $\text{srg}(85,14,3,2)$ and the
Euclidean representation**

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In general, it is still an open question to determine whether a strongly regular graph with given parameters exists. In this talk I will introduce our approach proving the non-existence of $\text{srg}(85,14,3,2)$: how we treat a strongly regular graph as a distance regular graph and its corresponding association scheme, how the Euclidean representation of a graph works, and our current progress on this problem.

This is a joint work with Professor Sergey Shpectorov.