



Algebra Seminar

Torsion-free $\mathfrak{sl}_2(\mathbb{C})$ -module of rank 2

Part 2

Speaker

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Thursday, February 7, 2019

2 p.m., SN-4040

Abstract:

In my previous talk, based on a joint work with Yuri Bahturin, I focused on some new results about torsion-free $\mathfrak{sl}_2(\mathbb{C})$ -module of rank 2. I talked about the construction of a new family of torsion-free \mathbb{Z}_2^2 -graded modules of rank 2. We proved that “almost all” of these modules are simple. In this talk, we will prove that the remaining, reducible, modules in this family contain a unique maximal proper submodule, which is graded simple. Moreover, we will prove rather general result about \mathbb{Z} -gradings of the torsion-free $\mathfrak{sl}_2(\mathbb{C})$ -module of finite rank.