



Algebra Seminar

Speaker

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Abstract:

In our previous work with Yuri Bahturin and Mikhail Kotchetov, we studied the torsion-free $\mathfrak{sl}_2(\mathbb{C})$ -modules of rank 1, and we found that all $\mathfrak{sl}_2(\mathbb{C})$ -modules of rank 1 are not graded. In this talk, we will focus on some new results about the torsion-free $\mathfrak{sl}_2(\mathbb{C})$ -module of rank 2. We construct a new family of torsion-free \mathbb{Z}_2^2 -graded modules of rank 2, and we will prove that some of these modules are simple under specific conditions. This is joint work with Yuri Bahturin