A Free Resolution for Bimodules over a Free Noncommutative Algebra

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Text of the abstract (100-400 words).

Let R be a free noncommutative algebra generated by a finite set. It is shown that we can compute a free resolution for quotient algebras of R as (R, R)-bimodules. In particular, we give some examples of graded free resolutions for universal enveloping algebras of Lie algebras.