A few problems on matrix rings

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Abstract

In this talk we will discuss problems in matrix rings over the integers, commutative rings and fields. Some of these problems have been partially solved, in particular, some results by my recent doctoral student Sam Mendelson have made some interesting dents towards better understanding matrix rings presented in an unusual albeit concrete way. Other problems remain open (to the best of my knowledge.) – This talk can be viewed as an updated version of a CAGS I gave seven years ago, in the Fall of 2012.

Keywords: rings, algebras, matrices, ascending chain condition (ACC).