

Trace modules over commutative rings

Haydee Lindo, Williams College, Williamstown, MA – 01267

Abstract

The well-known trace map on matrices can be generalized to a map on any module over a commutative ring. The image of such a map is a trace module. In this talk, I will discuss some historical uses, some recent developments and some on-going work in the theory of trace modules over commutative Noetherian rings. This will include applications of trace modules in understanding free summands, endomorphism rings, rigid modules, and special classes of rings.

Keywords: commutative ring, Noetherian ring, endomorphism ring, rigid module.