Discussiones Mathematicae
General Algebra and Applications 34 (2014) 203–204
doi:10.7151/dmgaa.1221

RELATIVE DETERMINANT OF A BILINEAR MODULE

Przemysław Koprowski

Faculty of Mathematics
University of Silesia
ul. Bankowa 14
40–007 Katowice, Poland

e-mail: pkoprowski@member.ams.org

Abstract

The aim of the paper is to generalize the (ultra-classical) notion of the determinant of a bilinear form to the class of bilinear forms on projective modules without assuming that the determinant bundle of the module is free. Successively it is proved that this new definition preserves the basic properties, one expects from the determinant. As an example application, it is shown that the introduced tools can be used to significantly simplify the proof of a recent result by B. Rothkegel.

Keywords: determinant, bilinear forms, projective modules.

2010 Mathematics Subject Classification: 11E39, 15A63, 13C10.

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Recived 31 August 2014
Revised 25 September 2014