

Damian M. Maingi

(Department of Mathematics

School of Physical Sciences

Chiromo Campus

Chiromo Way

University of Nairobi

P.O Box 30197, 00100 Nairobi, Kenya

Department of Mathematics

Sultan Qaboos University

P.O Box 50, 123 Muscat, Oman

Department of Mathematics

Catholic University of Eastern Africa

P.O Box 62157, 00200 Nairobi, Kenya)

E-mail: dmaingi@uonbi.ac.ke, dmaingi@cuea.edu, dmaingi@squ.edu.om

In this paper we construct indecomposable vector bundles associated to monads on multiprojective spaces. Specifically we establish the existence of monads on $\mathbf{P}^{2n+1} \times \mathbf{P}^{2n+1} \times \cdots \times \mathbf{P}^{2n+1}$ and on $\mathbf{P}^{a_1} \times \cdots \times \mathbf{P}^{a_n}$. We prove stability of the kernel bundle which is a dual of a generalized Schwarzenberger bundle associated to the monads on $X = \mathbf{P}^{2n+1} \times \mathbf{P}^{2n+1} \times \cdots \times \mathbf{P}^{2n+1}$ and prove that the cohomology vector bundle which is simple, a generalization of special instanton bundles. We also prove stability of the kernel bundle and that the cohomology vector bundle associated to the monad on $\mathbf{P}^{a_1} \times \cdots \times \mathbf{P}^{a_n}$ is simple. Lastly, we construct the morphisms that establish the existence of monads on $\mathbf{P}^1 \times \cdots \times \mathbf{P}^1$.

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