

1111-14-90

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Postboks 4 St Olavs plass, 0130 Oslo, Norway. *Theta divisors of stable vector bundles with many maximal subbundles.*

To a generic semistable bundle  $W$  of integral slope over a curve  $X$ , one can canonically associate a divisor  $\Theta(W)$  in the Jacobian of  $X$ , called the *theta divisor of  $W$* . If  $W_1$  and  $W_2$  are generic semistable bundles of the same slope over  $X$ , then the theta divisor of the direct sum  $W_1 \oplus W_2$  is the sum  $\Theta(W_1) + \Theta(W_2)$ . Conversely, Raynaud and Beauville have each given examples of *stable* bundles with reducible theta divisors. In this talk, we describe stable bundles of arbitrary rank  $r \geq 5$  with reducible and nonreduced theta divisors, over any curve of genus  $g \geq 5$ . Another nongeneric aspect of these bundles is that they admit positive-dimensional families of maximal subbundles of largest possible degree. (Received February 08, 2015)