1057-16-42 **Emre Coskun*** (`ecoskun@uwo.ca`), 120 Middlesex College, Department of Mathematics, University of Western Ontario, London, Ontario N6A 5B7, Canada. *The Fine Moduli Space of Representations of Clifford Algebras.*

Given a fixed binary form $f(u, v)$ of degree d over a field k, the associated *Clifford algebra* is the k-algebra $C_f = k\{u, v\}/I$, where I is the two-sided ideal generated by elements of the form $(\alpha u + \beta v)^d - f(\alpha, \beta)$ with α and β arbitrary elements in k. All representations of C_f have dimensions that are multiples of d, and occur in families. In this article we construct fine moduli spaces $U = U_{f,r}$ for the irreducible rd-dimensional representations of C_f for each $r \geq 2$. Our construction starts with the projective curve $C \subset \mathbb{P}^2_k$ defined by the equation $w^d = f(u, v)$, and produces $U_{f,r}$ as a quasiprojective variety in the moduli space $\mathcal{M}(r, d_r)$ of stable vector bundles over C with rank r and degree $d_r = r(d + g - 1)$, where g denotes the genus of C. (Received December 14, 2009)