1135-47-1588 **Kathryn McCormick*** (kathryn-mccormick@uiowa.edu), University of Iowa, 14 MacLean Hall, Iowa City, IA 52246. *Holomorphic Bundles Over Riemann Surfaces and Subalgebras of n-homogeneous C^*-algebras.*

Let $\overline{R}$ denote a finite bordered Riemann surface, and let $\Gamma_c(\overline{R}, \mathfrak{E}(\overline{R}))$ denote the continuous sections of a flat, matrix $PU_n(\mathbb{C})$-bundle over $\overline{R}$, $\mathfrak{E}(\overline{R})$. We write $\Gamma_h(\overline{R}, \mathfrak{E}(\overline{R}))$ for the collection of continuous sections of $\mathfrak{E}(\overline{R})$ that are holomorphic on the interior of $\overline{R}$. This is a subalgebra of the C^*-algebra of continuous sections, $\Gamma_c(\overline{R}, \mathfrak{E}(\overline{R}))$. Our first goal is to calculate the boundary representations of $\Gamma_c(\overline{R}, \mathfrak{E}(\overline{R}))$ for $\Gamma_h(\overline{R}, \mathfrak{E}(\overline{R}))$, in the sense of Arveson, showing that they are point evaluations on the boundary of $\overline{R}$. Our second goal is to show $\Gamma_h(\overline{R}, \mathfrak{E}(\overline{R}))$ is an Azumaya algebra over its center. Together, these two theorems indicate a sense in which our algebra $\Gamma_h(\overline{R}, \mathfrak{E}(\overline{R}))$ is a nonselfadjoint generalization of an n-homogeneous C^*-algebra. (Received September 23, 2017)