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Erin Griesenauer* (erin-griesenauer@uiowa.edu), Department of Mathematics, 14 MacLean Hall, Iowa City, IA 52242, and **Paul Muhly** (paul-muhly@uiowa.edu) and **Baruch Solel** (mabaruch@techunix.technion.ac.il). *Matrix Bundles, Function Algebras, and Azumaya Algebras*.

We study algebras of cross sections of holomorphic matrix bundles. Our work is inspired by certain matrix bundles that arise naturally in geometric invariant theory and noncommutative function theory. These algebras of cross sections may be viewed as noncommutative analogues of function algebras. We describe in detail how our algebras arise and show that they are Azumaya algebras. (Received September 19, 2015)