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Yusuf Mustopa* (ymustopa@umich.edu), Department of Mathematics, 2074 East Hall, 530 Church Street, Ann Arbor, MI 48109-1043. *Ulrich bundles on del Pezzo surfaces.*

Ulrich bundles occur naturally in a variety of algebraic and algebro-geometric topics, including determinantal and Pfaffian descriptions of hypersurfaces, the computation of resultants, and the representation theory of generalized Clifford algebras. In this talk I will discuss the connection between the existence of rank r Ulrich bundles on a degree- d del Pezzo surface X and the geometry of curves of degree dr on X , and how it can be used to study the moduli of Ulrich bundles on X . This is joint work with Emre Coskun and Rajesh Kulkarni. (Received September 14, 2010)