1116-11-1025   **Mckenzie West*** (`mckenzierwest@gmail.com`). *The Brauer-Manin obstruction and surfaces.*

The existence of rational points is a question applicable to a wide range of mathematical disciplines. There are many examples of surfaces that have local points at every prime yet have no global points. The Brauer-Manin obstruction can provide an explanation of this phenomenon. I will begin by defining the necessary details of the Brauer-Manin obstruction. Then I will present my results on the Brauer-Manin obstruction for a family of cubic surfaces which was first discussed by Birch and Swinnerton-Dyer in the 1970s. (Received September 16, 2015)