1154-11-1236 Bianca Viray* (bviray@uw.edu), Seattle, WA. Local integral models of cubic del Pezzo surfaces with a nontrivial Brauer class. Preliminary report.

It is an open question whether a cubic surface X with a 0-cycle of degree 1 has a rational point. Over a global field k, this is closely related to the question of whether a Brauer-Manin obstruction to the existence of k-points on X persists over any extension L/k of degree coprime to 3. By work of Bloch, Colliot-Thélène, Saito and Sato, persistence of the Brauer-Manin obstruction can be determined from the reduction type of cubic surfaces over local fields. We report on preliminary classification in this direction. (Received September 14, 2019)