1142-14-157 **Christopher Chiu**, **Tommaso de Fernex*** (defernex@math.utah.edu) and **Roi Docampo**, UT. *Embedding codimension of spaces of arcs.*

We define a notion of embedding codimension at k-rational points of an arbitrary scheme over a field k. If the scheme is locally of finite type, then this notion agrees with the usual definition given by the difference of the embedding dimension at a point with the local dimension of the scheme. The main theorem is a converse of the Grinberg-Kazhdan-Drinfeld theorem: the two results, combined, provide a characterization of the k-valued arcs on a variety that are not fully contained in the singular locus of the variety as those defining k-rational points on the arc space of the variety where the embedding codimension is finite. (Received September 01, 2018)