1161-22-156   **Carmen Galaz-García***, carmengg@math.ucsb.edu. *Zariski dense surface subgroups in*
$SL(n, \mathbb{Q})$.

In this talk I will explain how to construct a path $\rho_t \colon \pi_1(S) \to SL(n, \mathbb{R})$ for odd n of discrete, faithful and Zariski dense representations of a surface group such that $\rho_t(\pi_1(S)) \subset SL(n, \mathbb{Q})$ for every $t \in \mathbb{Q}$. As exemplified in the work of Long, Reid and Thistlethwaite, constructing Zariski dense surface subgroups in $SL(n, \mathbb{Q})$ has close connections to finding *thin groups*, which are infinite index subgroups of a lattice in $SL(n, \mathbb{R})$ that are Zariski dense. (Received August 16, 2020)