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Camén 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 $\rho_t: \pi_1(S) \rightarrow SL(n, \mathbb{R})$ 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 September 15, 2020)