1163-57-1506 Jiayi Chen, Jinghan Gao, Dayln Gillentine, Laetitia Huang and Sophia Marx* (smarx@smith.edu). Extending knot colorings over surfaces. Preliminary report.

A knot in the 3-sphere is slice if it bounds a disk in the 4-ball. Suppose K is p-colorable and slice, with p odd and square-free. Given a slice disk D for K, some p-coloring of K must extend over D. If K is not slice, one can instead ask when some p-coloring of K extends over a surface of genus g in the 4-ball, where g is the smooth 4-genus of K. We investigate this question from a combinatorial and diagrammatic perspective, and give several examples. (Received September 15, 2020)