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**Jonathan Simone\***, jsimone7@gatech.edu, and **Fraser Binns, Sungkyung Kang and Paula Truol**. *Nonorientable 4-ball genus of torus knots*.

The nonorientable 4-ball genus of a knot  $K$  in  $S^3$  is the minimal first Betti number of any smoothly embedded nonorientable surface in  $B^4$  bounded by  $K$ . This is the nonorientable analog of the 4-ball genus of  $K$  (i.e. the minimal genus of any smooth orientable surface in  $B^4$  with boundary  $K$ ). For torus knots, the 4-ball genus is known, whereas the nonorientable 4-ball genus is not well understood. In this talk, we will give new lower bounds for the nonorientable 4-ball genus of torus knots and calculate the nonorientable 4-ball genus for some infinite families of torus knots. (Received September 21, 2021)