

Computing the Smooth Nonorientable Four Genus of the Negative Nine Two Knot

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Abstract. The smooth nonorientable four genus of a knot K was defined by Murakami and Yasuhara in 2000 to be the minimal first Betti number of any non-orientable surface smoothly and properly embedded in D^4 with boundary K . Until recently, this invariant was unknown for many of the prime knots in the standard Rolfsen knot table. However, in 2018, Stanislav Jabuka and Tynan Kelly computed the smooth nonorientable four genus for all prime knots in the Rolfsen knot table with 8 or 9 crossings. We will consider a particular 9-crossing knot, -9_2 , and walk through Jabuka and Kelly's computation of its nonorientable four genus.