

1163-57-539

Juanita Pinzon-Caicedo* (jpinzonc@nd.edu), **Peter Feller** and **Allison Miller**. *The topological 4-genus of satellite knots.*

A satellite knot $P(K)$ is obtained by tying a given knot P inside a solid torus V along another knot K . The winding number w of the satellite operation is given by the algebraic intersection number of P with a meridional disk of the solid torus V . A result of Schubert states that for any pattern P with winding number w , there exists a constant $g_3(P)$ such that for any nontrivial knot K in S^3 we have $g_3(P(K)) = g_3(P) + |w|g_3(K)$. In this talk I will show that in the 4-dimensional smooth category an analogous formula holds, but in the topological category the winding number of the pattern is no longer pivotal. This is joint work with Allison Miller and Peter Feller. (Received September 08, 2020)