1176-57-6 **Charles Ransome Stine*** (crt64@brandeis.edu), 151 Tremont St., Apt 14J, Boston, MA 02111. *The Complexity of Shake Slice Knots.*

We define a notion of complexity for shake-slice knots which is analogous to the definition of complexity for h-cobordisms studied by Morgan-Szabó. We prove that for each framing $n \neq 0$ and complexity $c \geq 1$, there is an n-shake-slice knot with complexity at least c. Our construction makes use of dualizable patterns, and we include a crash course in their constructions and properties. We bound complexity by studying the behavior of the classical knot signature and the Levine-Tristram signature of a knot under the operation of twisting algebraically-one strands. (Received December 04, 2021)