**MR2093175 (2005g:57005)**

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**More classes of stuck unknotted hexagons. (English summary)**

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57M25 (57M15)



For polygons of fixed side lengths embedded in $\mathbb{R}^3$, a natural question is whether the embeddings are simply knot types, or there exist distinct embeddings of the same knot. This question was answered by J. Cantarella and H. Johnston [J. Knot Theory Ramifications **7** (1998), no. 8, 1027–1039; MR1671500 (99m:57002)]. They showed that for some particular assignment of side lengths, there are three connected components corresponding to the unknot in $\mathrm{Pol}_6(l_1, l_2, \ldots, l_6)$ (this notation is used for the space of embedding classes of polygons of 6 sides, where $l_1, l_2, \ldots, l_6$ are the lengths of the sides). Later, G. T. Toussaint [Beiträge Algebra Geom. **42** (2001), no. 2, 301–306; MR1865519 (2002k:57020)] showed that there are two more classes for a different polygonal unknot with 6 sides (a hexagonal unknot). In this article, the authors consider the maximum number of embedding classes for the unknot, and show that there exists a hexagonal unknot with at least nine embedding classes.

**Reviewed** by *Peiyi Zhao*

**[References]**

Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.

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