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Dale Koenig and **Anastasiia Tsvietkova*** (a.tsviet@rutgers.edu). *NP-hard problems naturally arising in knot theory.*

Abstract. Many problems that lie at the heart of classical knot theory can be formulated as decision problems, with an algorithm being a solution. Despite the lack of polynomial algorithms, few problems in knot theory were previously known to be NP-hard or NP-complete. We consider decision problems related to Reidemeister moves, to unlinking and splitting by crossing changes, and to detecting alternating links and sublinks. We prove that many of these problems are NP-hard. (Received September 17, 2019)