Periodic projections of alternating knots

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Let $K$ be an oriented prime alternating knot that is $q$-periodic with $q \geq 3$, i.e. $K$ admits a symmetry that is a rotation of order $q$. We present a proof that $K$ has an alternating $q$-periodic projection.

The main tool is the Menasco-Thistlethwaite’s Flyping theorem.

We present also some results about the visibility on projections of $q$-freely periodicity of alternating knots.