

Unknotting and Ascending Numbers of Knots and their Families

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Ascending numbers are determined for 64 knots with at most $n=10$ crossings. After proving the theorem about the signature of alternating knot families, we distinguished all families of knots obtained from generating alternating knots with at most 10 crossings, for which the unknotting number can be confirmed by using the general formulae for signatures. For 11 families of knots general formulae are obtained for their ascending numbers.

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