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Conjugate algebraic numbers on plane curves

If an algebraic number lies with all of its conjugates on a single line in the complex plane, then the number must either be totally real (so that the line is the real axis) or have rational real part and totally real imaginary part (so that the line is a vertical line consisting of those complex numbers with a fixed rational real part). Moving to the next level of complexity, we arrive at the conic sections. Roots of unity lie with their conjugates on the unit circle, and by a classical result of Kronecker, they provide the only example of algebraic integers satisfying this property. Work of Robinson, Ennola and Smyth completes the picture for circles, and Smyth and Berry have taken care of the other conic sections. It would be natural to next tackle the case of elliptic curves, but it may be easier to first treat curves of higher degree that arise as conic sections with respect to non-euclidean L^p norms. In this talk, an overview of the literature on conjugate algebraic numbers on lines and conics with respect to the euclidean norm, as well as some preliminary results for circles with respect to L^p norms will be given.