

# The spherical curvature of arbitrary algebraic varieties

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In this talk, based on [1], we will study the complexity involved in the computation of the critical spherical curvature points of an arbitrary algebraic variety. We present properties of the critical spherical curvature points as well as an algorithm for computing them. We will see that critical spherical curvature is an algebraic number in the case of algebraic varieties. Finally, we prove that all singular points of the generalized evolute correspond to points in the critical curvature pairs variety. This generalizes classical findings.

## References

- [1] E. Horobeț, *The critical curvature degree of an algebraic variety*, Journal of Symbolic Computation, Volume 121, MarchApril 2024, 102259.