

COMPUTING TROPICAL CURVES VIA HOMOTOPY CONTINUATION

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We develop a method for computing tropical curves using numerical algebraic geometry. Our method guesses rays in tropical curves by sampling points in amoebas, and we develop numerical procedures to check whether a point is in the tropical variety without having to compute any Groebner bases. We also give an implementation of our methods. As an application, we use this technique to compute Newton polygons of A -polynomials of knots.

Joint work with Anders Jensen (Aarhus University) and Anton Leykin (Georgia Tech).