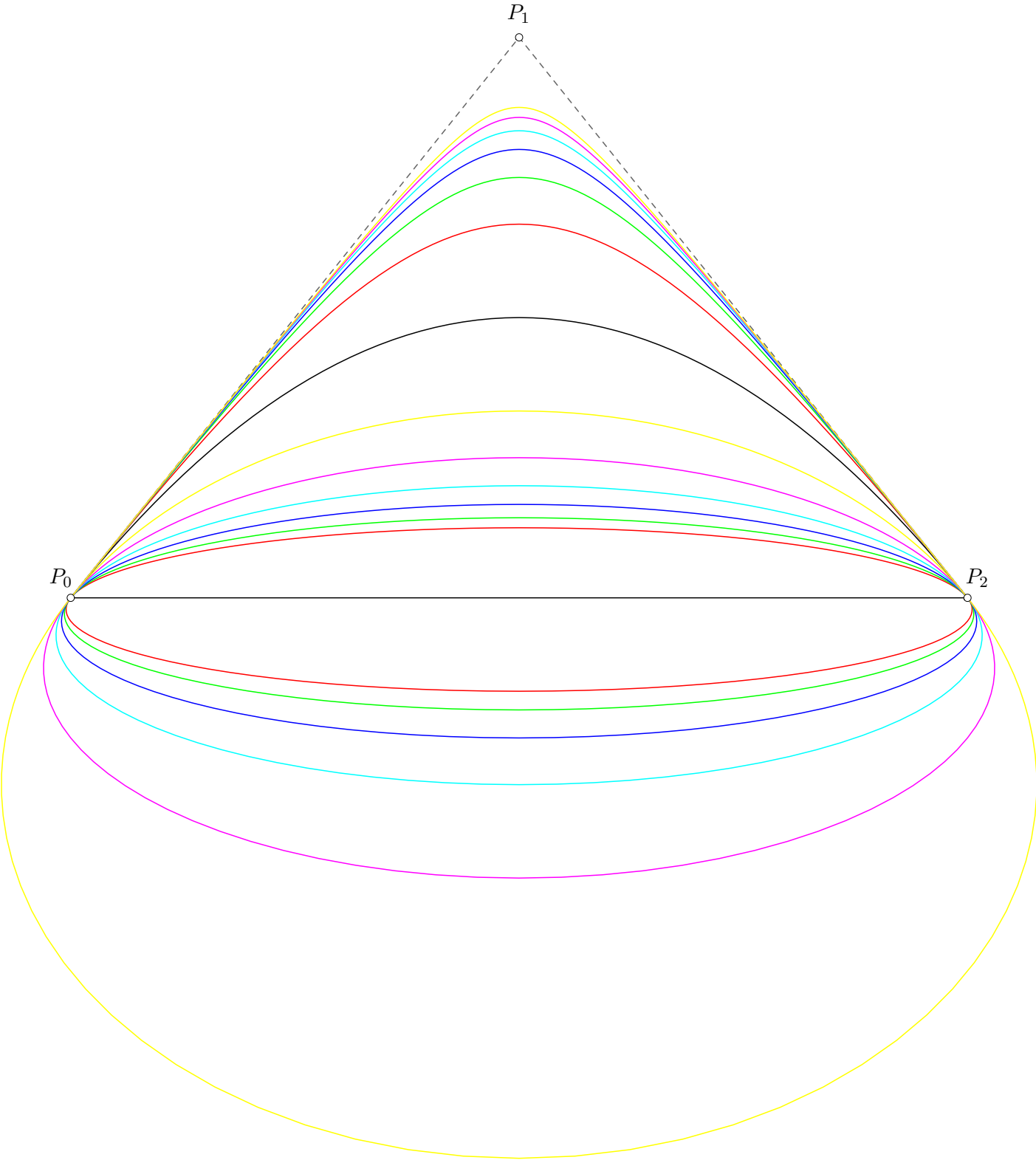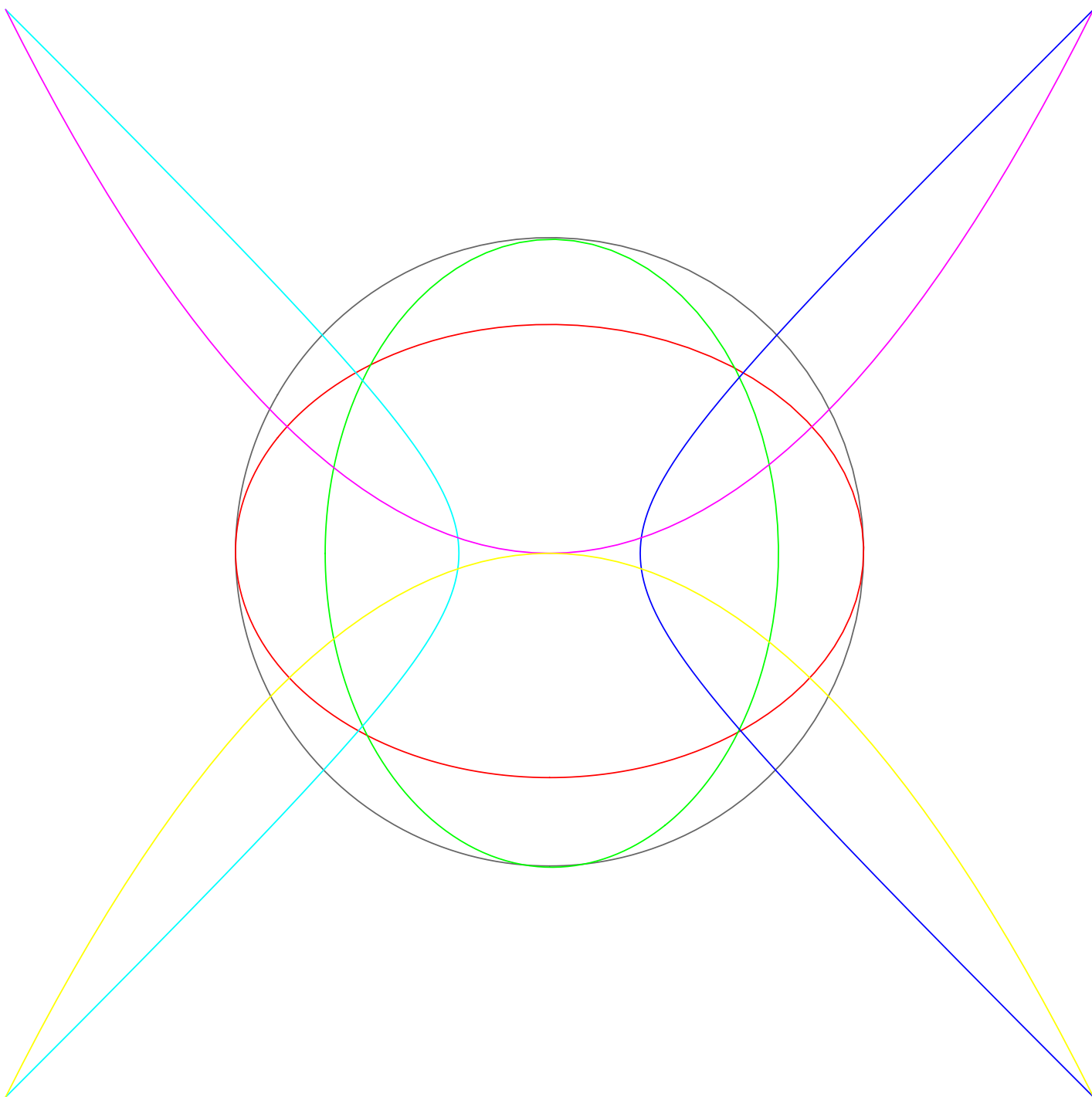# I. Rational Quadratic Bezier Curves

All curves share the same Bezier points, but they differ in the weights of the points. The black curve is a parabola $w = 1$. Above of this all curves are hyperbolas with increasing weigts, below of this are elliptic curves with decreasing weights. The line has a weight of $w = 0$. After this the weights are negative increasing. The curves are the complementare elliptical arcs to the positive counterparts.

II. Conic Curves

Circle, Ellipse, Parabola, Hyperbola