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Taylor Christian Brysiewicz* (tbrysiewicz@math.tamu.edu). *Necklaces count polynomial parametrized osculants.*

We consider the problem of locally approximating an analytic curve in the complex plane plane by a polynomial parametrizations of bidegree (d_1, d_2) . These parametrizations can achieve a higher order of contact than Taylor approximations at the cost of losing uniqueness. We study the extent to which uniqueness fails by counting the number of such curves as the number of aperiodic combinatorial necklaces on d_1 white beads and d_2 black beads. We analyze when this count is odd as an initial step in studying when real solutions exist. (Received January 29, 2019)