Assignment 5

COS 702 Fall 2017

The following amoeba-like domain is bounded by

$$\partial\Omega = \{(rcos\theta, rsin\theta): r = e^{sin\theta}(sin^2 2\theta) + e^{cos\theta}(cos^2 2\theta)\}$$

Which is shown in Figure 1. Use various boundary points to reconstruct the curve and then approximate the area of the amoeba-like using Halton points.

Note: try to use different number of boundary to reconstruct the domain and then use different number of Halton points to estimate the area of amoeba-like domain.

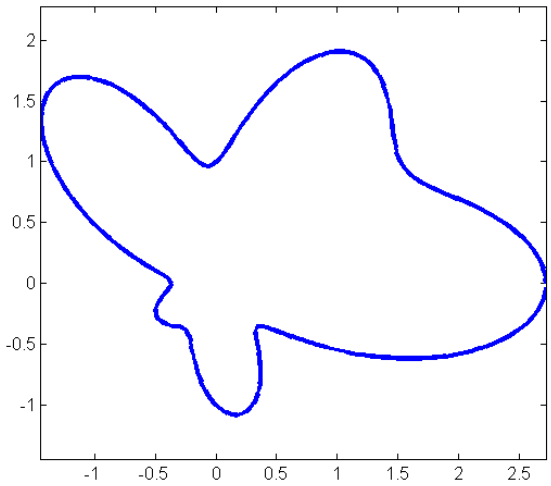

Figure 1: Amoeba-like domain.