MF 772 Assignment 9 Yuhe Xiao

Problem 1

(a)

Let

We have , and by definition, C>=0, so

Let

We have , by the same argument we can have , so

(b)

So C is copula

(c)

Let

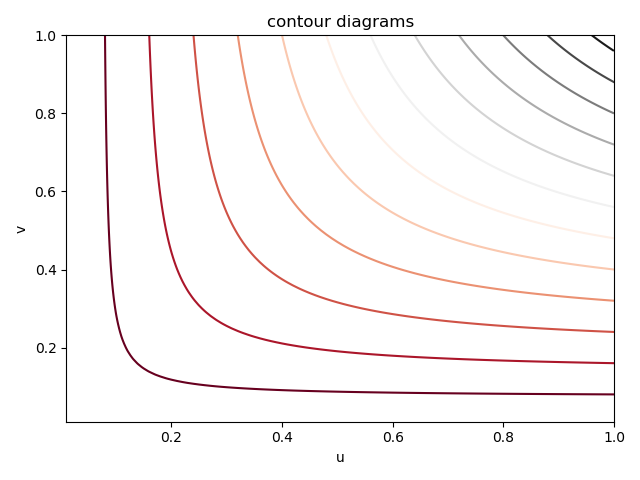
Let

Problem 2

(a)

(b)

(c)



Problem 3

Steps from Copula to default times:

1. Correlated variables by Gaussian copula

rho\_list: [0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9]

probability that first default in 5 years:

[0.80335, 0.74591, 0.69194, 0.63917, 0.58026, 0.52703, 0.46871, 0.4075, 0.32993]

