**Appendices:**

**A.1. Code for Q1.2.2**

1. import numpy as np

2. import matplotlib.pyplot as plt

3. from mpl\_toolkits.mplot3d import Axes3D

4. from matplotlib.tri import Triangulation

5.

6. W = 100

7. a = 2

8. n = 2

9. delta1 = 0.1

10. delta2 = 0.2

11.

12. b = np.linspace(0, 5, num=51)

13. d = np.linspace(0, 5, num=51)

14.

15. B, D = np.meshgrid(b, d)

16.

17. mmp = (6.895 \* W)/(n \* a \* pow(B,0.8) \* pow(D,0.8) \* pow(delta2,0.4))

18.

19. tri = Triangulation(B.ravel(), D.ravel())

20.

21. fig = plt.figure(figsize=(5, 5))

22. ax = fig.add\_subplot(111, projection='3d')

23.

24. ax.plot\_trisurf(tri, mmp.ravel(), cmap='cool', edgecolor='none', alpha=0.8)

25.

26. ax.set\_title('MMP metric as a function of d and (delta=0.2)', fontsize=14)

27. ax.set\_xlabel('b', fontsize=12)

28. ax.set\_ylabel('d', fontsize=12)

29. ax.set\_zlabel('MMP', fontsize=12)

30.

31. plt.show()

32.