

CA659 Mathematical Models/Computational Science

In-Class Exercise 1

Exercise to Assess Moving Average & Least Squares:

1. For the profits data below, showing 4 years running in quarterly data, roughly graph the data and calculate the trend with Moving Averages (2X4pt) & Least Squares

1.1	3.17
1.2	7.64
1.3	6.11
1.4	6.58
2.1	7.87
2.2	9.34
2.3	9.81
2.4	12.28
3.1	16.57
3.2	17.04
3.3	16.51
3.4	13.98
4.1	20.27
4.2	21.74
4.3	19.21
4.4	22.68

2. For the sales data below, showing 4 consecutive years in quarterly data, roughly graph it and calculate the trend using Moving Averages (2X4pt) and Least Squares

1.1	0.45
1.2	1.4
1.3	0.35
1.4	-0.7
2.1	0.95
2.2	-0.1
2.3	0.85
2.4	0.8
3.1	0.45
3.2	0.4
3.3	-0.65
3.4	-1.7
4.1	-2.05
4.2	-1.1
4.3	-1.15
4.4	-0.2