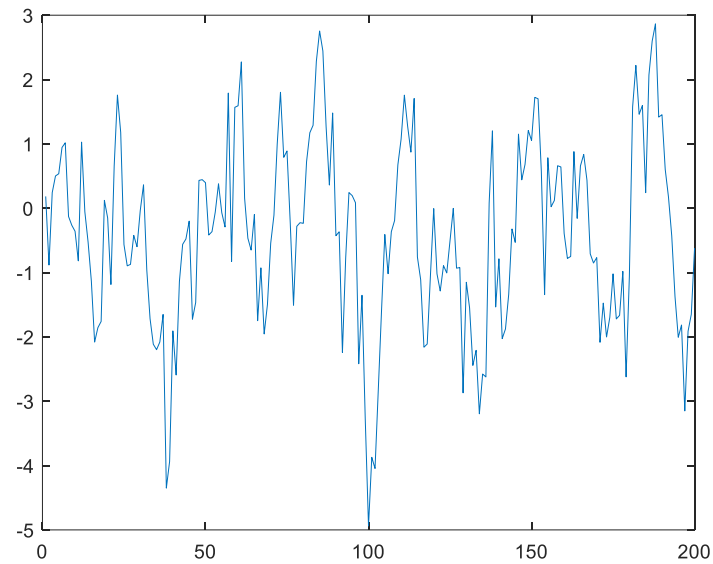


## Exercise 1 - AR (in MATLAB)

September 5, 2017

### 1<sup>st</sup> Order System (provided)

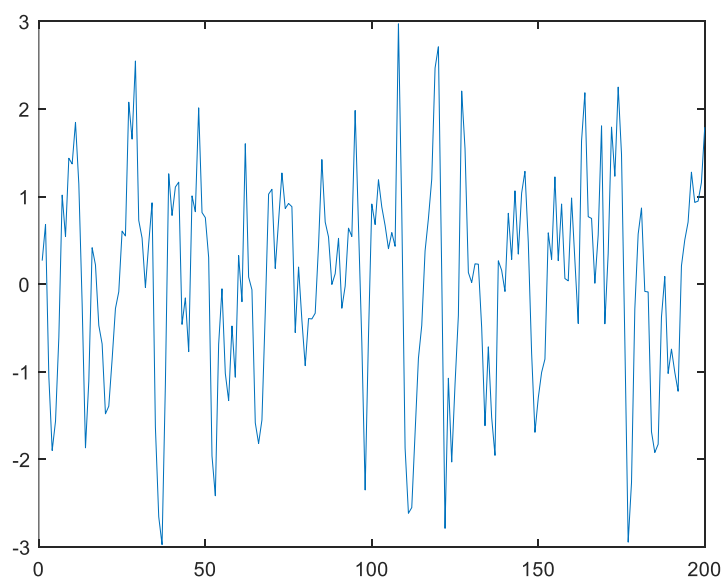
Parameters set: 1, -0.7



*ARyule 1<sup>st</sup> Order estimation: 1.0000, -0.7589*

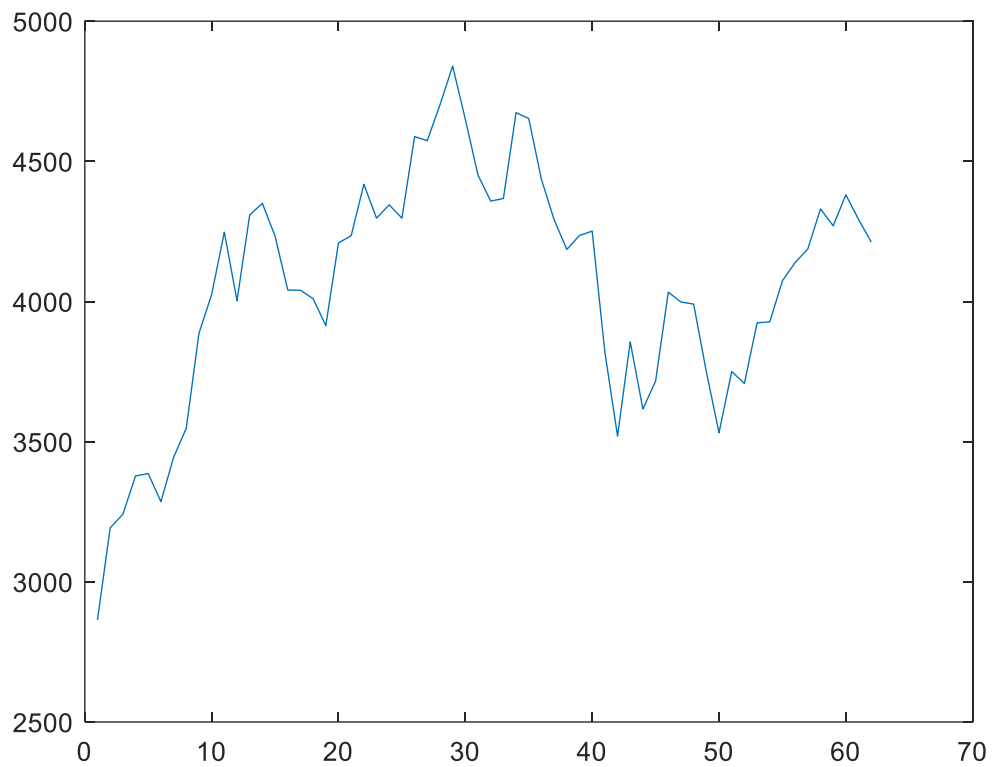
### 2<sup>nd</sup> Order System (provided)

Parameters set: 1, -0.7, 0.2



*ARyule 2<sup>nd</sup> Order estimation: 1.0000, -0.7706, 0.2587*

Financial Times Series (Bitcoin ~2 months)



*ARyule 1<sup>st</sup> Order estimation: 1.0000 -0.9865*

*ARyule 2<sup>nd</sup> Order estimation: 1.0000 -1.0386 0.0529*

*ARyule 3<sup>d</sup> Order estimation: 1.0000 -1.0372 0.0256 0.0262*

*ARyule 4<sup>th</sup> Order estimation: 1.0000 -1.0372 0.0256 0.0259 0.0003*