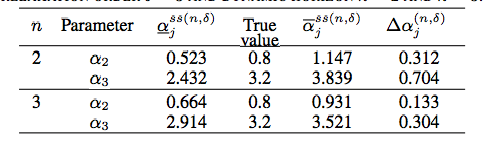
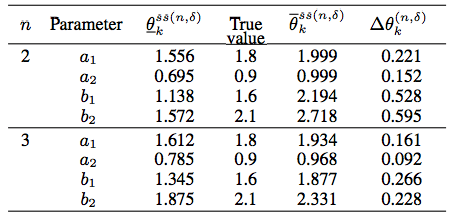
HW模型辨识算法研究

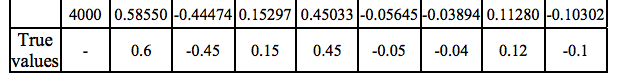
An Improved Hammerstein-Wiener System Identification with Application to Virtualized Software System——2015 IEEE Conference on Control Applications (CCA) Part of 2015 IEEE Multi-Conference on Systems and Control

| Model Order | **6** | **7** | **8** | **9** |
| --- | --- | --- | --- | --- |
| MSE | 0.0236 | 0.0198 | 0.0061 | 0.0039 |

Set-Membership identification of Hammerstein-Wiener systems——2011 50th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC)



model\_order = 6, mean\_squared\_error = 0.04455

Parameter Estimation of Hammerstein-Wiener ARMAX Systems Using Unscented Kalman Filter——Proceeding of the 2nd RSI/ISM International Conference on Robotics and Mechatronics October 15-17, 2014, Tehran, Iran

效果很好，但是假设非线性模块函数f(·)，G(·)是已知的

多变量 Hammerstein － Wiener 模型的参数辨识——东 北 大 学 学 报 ( 自 然 科 学 版 )

MSE = 0.0547

综上

针对识别问题，生成大量数据，

x 调频信号采样1000点

B,b,h HW模型参数

y 经过模型后的信号序列

将其作为训练数据

Train\_x = [x,y]

Train\_y = [B,b,h]

设计网络进行训练得到

|  | 国外1 | 国外2 | 国内1 | 网络 |
| --- | --- | --- | --- | --- |
| MSE | 0.0236 | 0.04455 | 0.0547 | 0.00805 |