| Model | Model characteristics | Data characteristics | Advantages | Disadvantages |
|---|---|---|---|---|
| Exponential smoothing | linear | • deterministic<br>• stationarity<br>• small quantity<br>• continuity | • small quantity of data needed | |
| ARIMA | | • stochastic<br>• non-stationarity<br>• small quantity | • well established theoretical background | • focus on mean, miss the extremes<br>• sensitive to missing data |
| Kalman filtering | | | • multivariate modelling | |
| Nearest neighbour | | | • simple model structure<br>• multivariate modelling<br>• robustness to missing data | |
| Neural networks | | | • able to map complex tempo-spatial relationships<br>• multivariate modelling<br>• accurate multistep-ahead predictions<br>• robustness to missing data | data and computation intensive |
| Bayesian networks | | | • multivariate modelling | |
| Support vector machines | | | | |