

Functional  
simulations of the  
model exist.

It accurately  
describes the  
system in ranges  
outside of the  
original data points.

It accurately  
predicts previously  
observed  
conditions of the  
modeled system.

It accurately  
predicts  
unanticipated  
behaviors of the  
modeled system.

It accurately  
reflects the  
modeled system.

It can  
accommodate and  
test new theories.

It can be applied to  
more than one  
real-world system.

It can be evaluated  
using logic.

It can be evaluated  
using mathematical  
logic.

It can be  
represented  
visually.

It can be trained by  
new data sets.

It converges to a  
stationary state.

It generates testable  
hypotheses.

It has a minimal  
number of  
parameters for the  
modelled system.

It has clearly  
defined parameters.

It has  
well-documented  
assumptions.

It is adaptable in  
the face of new  
empirical data.

It is based on  
expert analysis.

It is complex.

It is  
computationally  
tractable.

It is easy to  
understand and  
analyze.

It is internally  
consistent  
mathematically.

It is possible to  
collect empirical  
data from the  
modeled system.

It is simple.

It mostly fits the  
empirical data over  
a wide range of  
conditions.

It provides insight  
into the way the  
modeled system  
functions.

It provides  
repeatable output.

It resists entering  
known  
counter-factual  
states.

It suggests novel  
solutions to  
real-world  
problems.

It very closely fits  
the empirical data  
over a small range  
of conditions.

