

Data Assimilation and Genetic Algorithms for the Parameter Estimation Problem in Simple Climate Models

Morgan R. Frank¹, Andrew Reagan²

Computational Story Lab, Department of Mathematics and Statistics, Vermont Complex Systems Center, Vermont Advanced Computing Core,
University of Vermont, Burlington, Vermont, United States of America

¹mrfrank@uvm.edu, ²andyreagan@andyreagan.com

January 14, 2014

Abstract

Given observations of an atmospheric phenomenon and a well-principled model of that phenomenon, the parameters for the model must be properly tuned if the model is to mimic the data. We investigate the use of genetic algorithm in comparison to data assimilation as a means of performing parameter estimation when tuning models to data. We compare results while tuning chaotic dynamics, observation noise and frequency, and system dimensionality while performing parameter estimation for the Lorenz '63 and Lorenz '96 systems.

popular Lorenz '63 system [20] and the Lorenz '96 system [21]. The Lorenz '63 system (L63), which yields the widely known Lorenz Attractor, is a simple three-variable model with highly tunable dynamics, allowing researchers a computationally tractable means to experiment in the predictability of chaotic systems. The Lorenz '96 system (L96) exhibits tunable chaotic dynamics as well, while additionally providing a computationally tractable way to change the system dimensions and tune the accuracy of data observations. Both systems provide interesting and computationally manageable test beds for the parameter estimation problem across several different types of systems. Figure 1 shows example trajectories for each system.

1 Introduction

Weather forecasting has become an expected part of everyday life in the modern society. Things like air-travel, disaster preparation, and daily planning rely on effective predictions [13]. However, predicting future states of the atmosphere proves to be difficult as chaotic systems exhibit sensitive dependence of initial conditions [14–16]. This hurdle is overcome by utilizing computationally expensive global climate models (GCMs), but scientists working to improve weather forecasting often lack the time or computational power to execute many GCMs. Instead, climate scientists often use simple models that account for particular aspects of the weather forecasting problem.

Edward Lorenz has made major contributions to the fields of dynamical systems and atmospheric prediction [17–19]. Two such contributions are the wildly

2 Methods

2.1 The Lorenz '63 Model

In 1962, Barry Saltzman attempted to model convection in a Rayleigh-Bénard cell by reducing the equations of motion into their core processes [12]. Then in 1963 Edward Lorenz reduced this system ever further to 3 equations, leading to his landmark discovery of deterministic non-periodic flow [11]. This system, which we will call the Lorenz 63 system, exhibits sensitive dependence on initial conditions, meaning that small errors in an approximation will lead to exponential error growth. These equations have since been the subject of intense study and have changed the way we view prediction and determinism, remaining the simple system of choice for examining

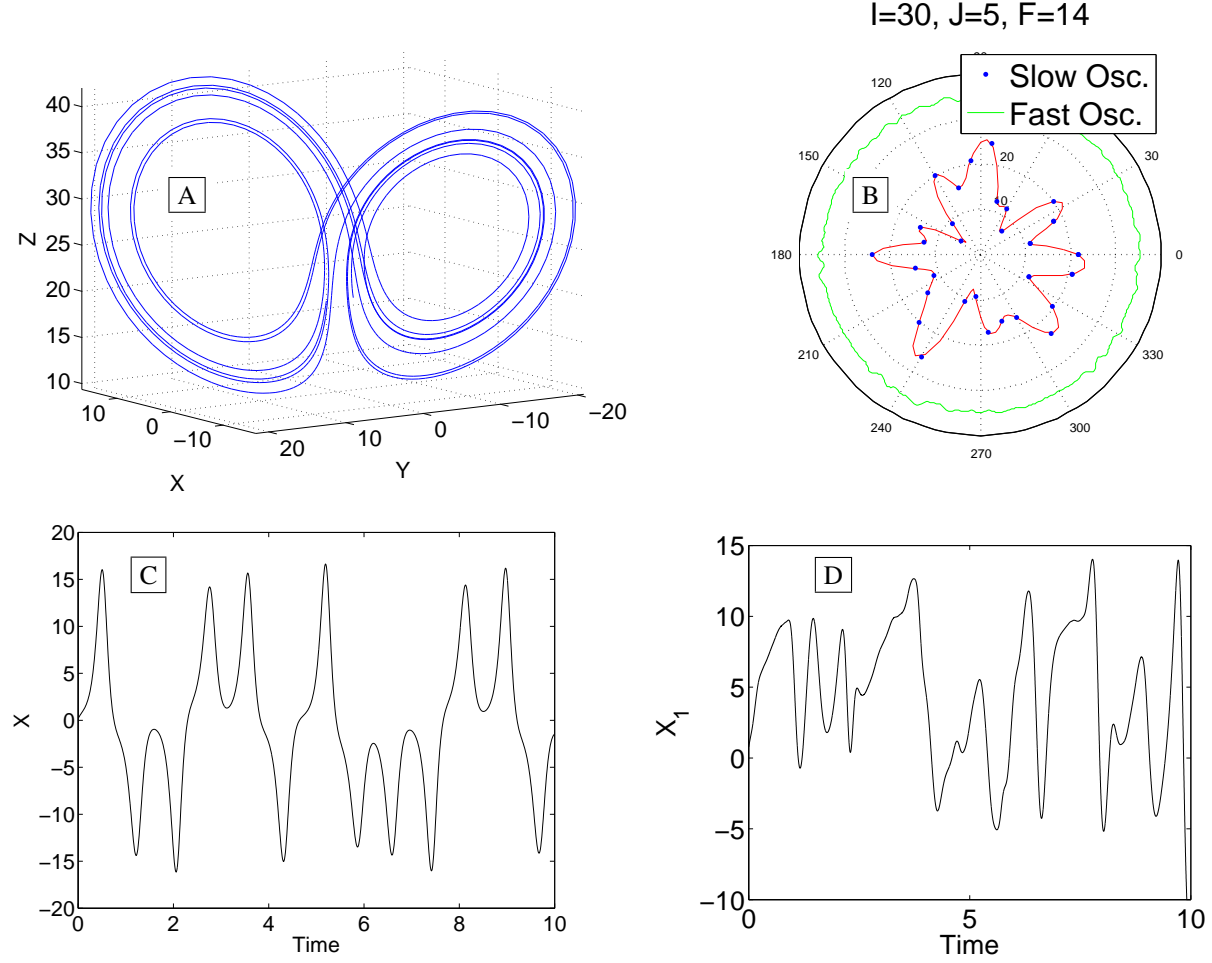


Figure 1. (A) The popular “Lorenz Attractor” produced with the Lorenz ’63 system. This three-variable system produces a “butterfly”-like chaotic attractor that is well-known among fractal and chaos enthusiasts. **(B)** An snapshot of a trajectory of the Lorenz ’96 system. Each blue point is a slow oscillator, and the adjacent sections of green represent the fast oscillators coupled with the corresponding slow oscillator. The origin represents the lowest value achieved by any of the slow oscillators on this trajectory. The red line is a cubic spline interpolation of the blue data points. **(C)** An example trajectory of the X variable from the Lorenz ’63 system. **(D)** An example trajectory for a slow oscillator of the Lorenz ’96 system.

nonlinear behavior today [10]. The three equations are:

$$\begin{aligned}\frac{dx}{dt} &= \sigma(y - x) \\ \frac{dy}{dt} &= \rho x - y - xz \\ \frac{dz}{dt} &= xy - \beta z.\end{aligned}$$

The canonical choice of $\sigma = 10$, $\beta = 8/3$ and $\rho = 28$ produce the well known butterfly attractor, and to adjust

the strength of nonlinearity (chaos) we tune the ρ parameter.

2.2 The Lorenz ’96 Model

In 1995, Edward Lorenz introduced the following I -dimensional model [17, 19]. The key characteristics of this model include tunable chaotic behavior when subject to enough forcing, and tunable dimensionality. The pre-

decessor to the current model is given by

$$\frac{dx_i}{dt} = x_{i-1}(x_{i+1} - x_{i-2}) - x_i + F \quad (1)$$

where $i = 1, 2, \dots, I$ and F is the forcing parameter. Each x_i represents observations of some atmospheric quantity, like temperature, evenly distributed about a given latitude of the globe. This implies a modularity in the indexing that is described by $x_{i+I} = x_{i-I} = x_i$.

This early model failed to produce realistic growth rate of the large-scale errors along with lacking tenability in observation reliability. Lorenz went on to introduce a more flexible model in 1996 by coupling two systems similar to the model in equation (1), but differing in time scales. The equations for the Lorenz '96 model [21] are given as

$$\frac{dx_i}{dt} = x_{i-1}(x_{i+1} - x_{i-2}) - x_i + F - \frac{hc}{b} \sum_{j=1}^J y_{(j,i)} \quad (2)$$

$$\frac{dy_{(j,i)}}{dt} = cby_{(j+1,i)}(y_{(j-1,i)} - y_{(j+2,i)}) - cy_{(j,i)} + \frac{hc}{b}x_i \quad (3)$$

where $i = 1, 2, \dots, I$ and $j = 1, 2, \dots, J$. The parameters b and c indicate the time scale of solutions to equation (3) relative to solutions of equation (2), and h is the coupling parameter. The coupling term can be thought of as a parameterization of dynamics occurring at a spatial and temporal scale unresolved by the x variables. Again, each x_i represents an atmospheric observation about a latitude that oscillates in slow time, and the set of $y_{(j,i)}$ are a set of J fast time oscillators that act as a damping force on x_i . The y 's exhibit a similar modularity described by $y_{(j+IJ,i)} = y_{(j-IJ,i)} = y_{(j,i)}$.

2.3 Data Assimilation

Areas as disparate as quadcopter stabilization [1] to the tracking of ballistic missile re-entry [2] use data assimilation. The purpose of data assimilation in weather prediction is defined by Talagrand as “using all the available information, to determine as accurately as possible the state of the atmospheric (or oceanic) flow.” [3] The data assimilation algorithm that we use here, the Kalman filter, was originally implemented in the navigation system of Apollo program [4, 5].

Data assimilation algorithms consist of a 3-part cycle: predict, observe, and assimilate. Formally, the data assimilation problem is solved by minimizing the initial condition error in the presence of specific constraints. The prediction step involves making a prediction of the future state of the system, as well as the error of the model, in

some capacity. Observing systems comes in many flavors: satellite irradiance for the atmosphere, temperature and velocity reconstruction from sensors in experiments, and sampling the market in finance. Assimilation is the combination of these observations and the predictive model in such a way that minimizes the error of the initial condition state, which we denote the analysis.

In addition to determining the initial conditions, we can extend the Extended Kalman Filter (EKF) to determine the model parameters. This is accomplished by considering the model parameters as variables of the model itself, with their differential equation being equal to 0, since they do not change with the solution. The value of this consideration is that the covariance of the model variables and model parameters is now included in the Tangent Linear Model (the Jacobian of the extended analytical system) and hence is updated by the Kalman gain matrix.

The formulation of the filter we employ is the standard formulation, since the incorporation of parameters into the estimation is independent of the filter itself. Using the notation of Kalnay [6], this amounts to making a forecast with the nonlinear model M (either Lorenz 63 or Lorenz 96 in this study), and updating the error covariance matrix \mathbf{P} with the TLM L , and adjoint model L^T

$$\begin{aligned} \mathbf{x}^f(t_i) &= M_{i-1}[\mathbf{x}^a(t_{i-1})] \\ \mathbf{P}^f(t_i) &= L_{i-1}\mathbf{P}^a(t_{i-1})L_{i-1}^T + \mathbf{Q}(t_{i-1}) \end{aligned}$$

where \mathbf{Q} is the noise covariance matrix (model error). In the experiments here, $\mathbf{Q} = 0$ since our model is perfect. In NWP, \mathbf{Q} must be approximated, e.g. using statistical moments on the analysis increments [7, 8]. The analysis step is then written as (for H the observation operator):

$$\mathbf{x}^a(t_i) = \mathbf{x}^f(t_i) + \mathbf{K}_i \mathbf{d}_i \quad (4)$$

$$\mathbf{P}^a(t_i) = (\mathbf{I} - \mathbf{K}_i \mathbf{H}_i) \mathbf{P}^f(t_i) \quad (5)$$

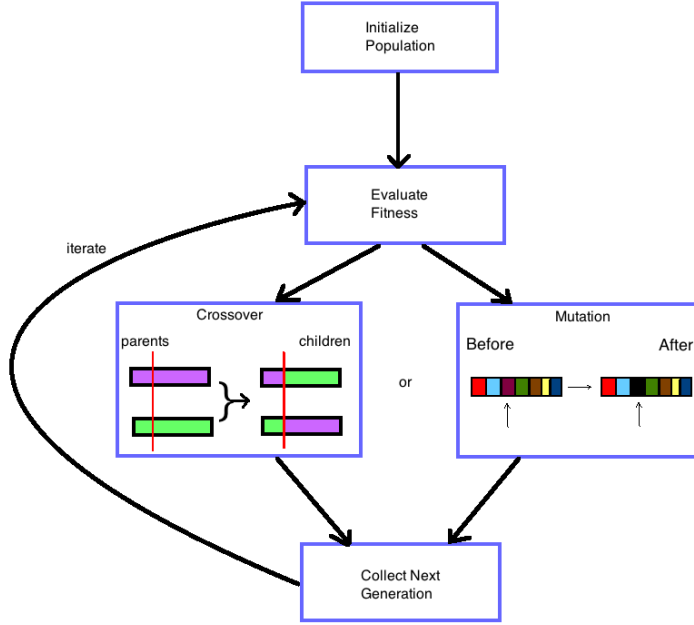
where

$$\mathbf{d}_i = \mathbf{y}_i^o - \mathbf{H}[x^f(t_i)]$$

is the innovation. The Kalman gain matrix is computed to minimize the analysis error covariance \mathbf{P}_i^a as

$$\mathbf{K}_i = \mathbf{P}^f(t_i) \mathbf{H}_i^T [\mathbf{R}_i + \mathbf{H}_i \mathbf{P}^f(t_i) \mathbf{H}_i^T]^{-1}$$

where \mathbf{R}_i is the observation error covariance. Since we are making observations of the truth with known standard deviation ϵ , the observational error covariance matrix \mathbf{R} is a diagonal matrix with the standard deviation ϵ along the diagonal. This information is an additional assumption, we could however not use this information and simply sample ϵ as a part of the experiment.



Example GA experiment:

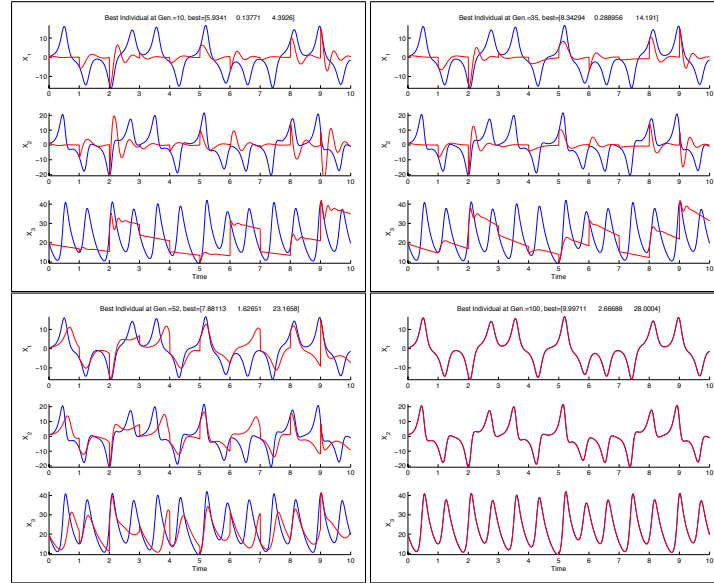


Figure 2. (Top) A cartoon demonstrating the flow of control for GA execution. The population of random real-valued vectors is initialized, and each individual has its fitness assessed. With some probability individuals are selected for single-point crossover or mutation. The children from these processes are collected into the new population. This process is iterated for a prescribed number of generations or until iteration fails to yield improvement. (Bottom) An example illustrating the improvement in parameter estimation made by the GA when attempting to recover the parameters ($\sigma = 10, b = 8/3, R = 28$) over 100 generations. The observed data (truth) is in blue, while the trajectory yielded from the best guess at the true parameters is provided in red. From left to right, we show the best solution after 10, 35, 52, and 100 generations. We see that at 100 generations, the best guess at the true parameters is reasonably close to the correct answer ($\sigma = 9.99711, b = 2.66688, R = 28.0004$)

The most difficult, and most computationally expensive, part of the EKF is deriving and integrating the TLM. Here we use a differentiated Runge-Kutta scheme of 4th order to accurately integrate the TLM. For more details on this implementation, see Reagan [9].

2.4 Genetic Algorithm

The area of genetic algorithms (GAs) is a prominent area of research [24, 25] with applications in several areas of research, including bankruptcy modeling [26], calibrating water runoff models [27], and spectral data analysis [28]. One key feature of GAs is that no knowledge of the model being fitted is required. To demonstrate the availability and robustness of this algorithm, we proceed by utilizing Matlab’s built-in GA function, called “*ga.m*”, with essentially no alterations from the default options (i.e. the defaults for “*gaoptimset.m*”). The only assumption of note is that we assume parameters are positive real-values. Like other evolutionary algorithms, GA is applicable whenever a problem can be phrased in the biological evolution paradigm. The major hallmarks of this paradigm include identifying a population of genes and subjecting that population to crossover, genetic mutation, and selection pressure. The “individuals” in the population of genes for our experiments will be real-valued vectors where each entry in a vector represents a parameter choice, and vectors are of the same length as the number of parameters being recovered.

Selection pressure is imposed on our population through a fitness-evaluation function that evaluates the “fitness” of an individual by the the root-mean square error of a model integration with the parameter choices encoded in the individual vector who’s fitness is being evaluated. The root-mean square error is calculated at each time t that we have observation data. Notice that lower fitness is better in this context. Furthermore, we are attempting to recover parameters for chaotic systems; thus, there may exist brief intervals where the integration fits the observed data simply by chance. This has to do with the unpredictability of chaotic systems over long integration times, and the bounded nature of the chaotic attractors in this study. We address this concern by restarting our integration at unit model-time intervals based on the observation data.

We use stochastic uniform selection to select two individuals at a time based on their fitness to undergo single-point crossover. Single-point crossover begins by randomly selecting a vector index. The two “parents” un-

dergoing crossover are replaced in the population by two “children”. The first child is conceived by taking the indices from the first parent up to the selected index. The remaining indices are filled from the second parent. The second child is created following the same process where the parents’ roles are switched. This process allows the population to converge on good parameter choices since a good parameter choice will yield favorable fitness scores. Fit individuals will have an increased chance of being selected to pass on genetic material to the next generation.

Genetic mutation is the mechanisms that allows the population to further explore parameter space. When an individual is subject to mutation, a vector index is selected randomly and a randomly selected small real-value is added to or subtracted from the value currently stored at that index of the individual. Large population sizes along with a high mutation rate (i.e. the probability of being subject to mutation) encourage robust sampling of parameter space.

The above mentioned mechanisms are highly tunable in that mutation, crossover, fitness evaluation, and selection can all be achieved through a variety of different methods. The key is to pick these methods to fit the problem you are addressing. The GA is initialized by randomly generating a population of real-valued vectors of the same length as the number of parameters we are trying to recover. Each individual is then assessed for fitness. Now individuals are selected for reproduction based on their fitness and other individuals are subject to genetic mutation. The two fittest individuals from the population are allowed to remain unchanged. This process yields the population for the next generation of individuals. We iterate this procedure for a prescribed number of generations, or until the population-wide fitness stops changing with successive generations. Figure 2 shows examples for some of these mechanisms along with a snap shot from a GA experiment attempting to recover parameters for L63.

2.5 Experiment Specifications

For both of the systems, we study the performance of our parameter estimation scheme under varying observational noise, observational density, observational frequency, nonlinearity and dimension. This amounts to 4 (L63) and 5 (L96) dimensions of the experimental design, and we outline the specific choices for each experiment in Table 1.

The experiments were chosen to mimic realistic conditions under which simple models are fit to data, and to

Parameter	Values Explored	Interpretation
Observed Variables (63 Only)	$[x, \text{all}]$	Limited observations
Observational Noise	Normal w/ st. dev. in $[0, .01, .05, .1, .25, .5, 1, 2]$ Uniform chosen from range $\{[0, 0], [-.25, .25], [-1, 1], [-2, 2], [-3, 3], [-4, 4], [-5, 5]\}$	Measurement and representativeness errors
Nonlinearity	$\rho \in [22, 28, 35]$	Chaotic behavior
Dimensionality	$I \in [4, 8, 10, 15]$	Model Complexity
Subsampled observations	$[1, 5, 25, 50]$	Infrequent observations

Table 1: Experimental parameter choices on which we test the performance of Data Assimilation and a Genetic Algorithm for fitting model parameters.

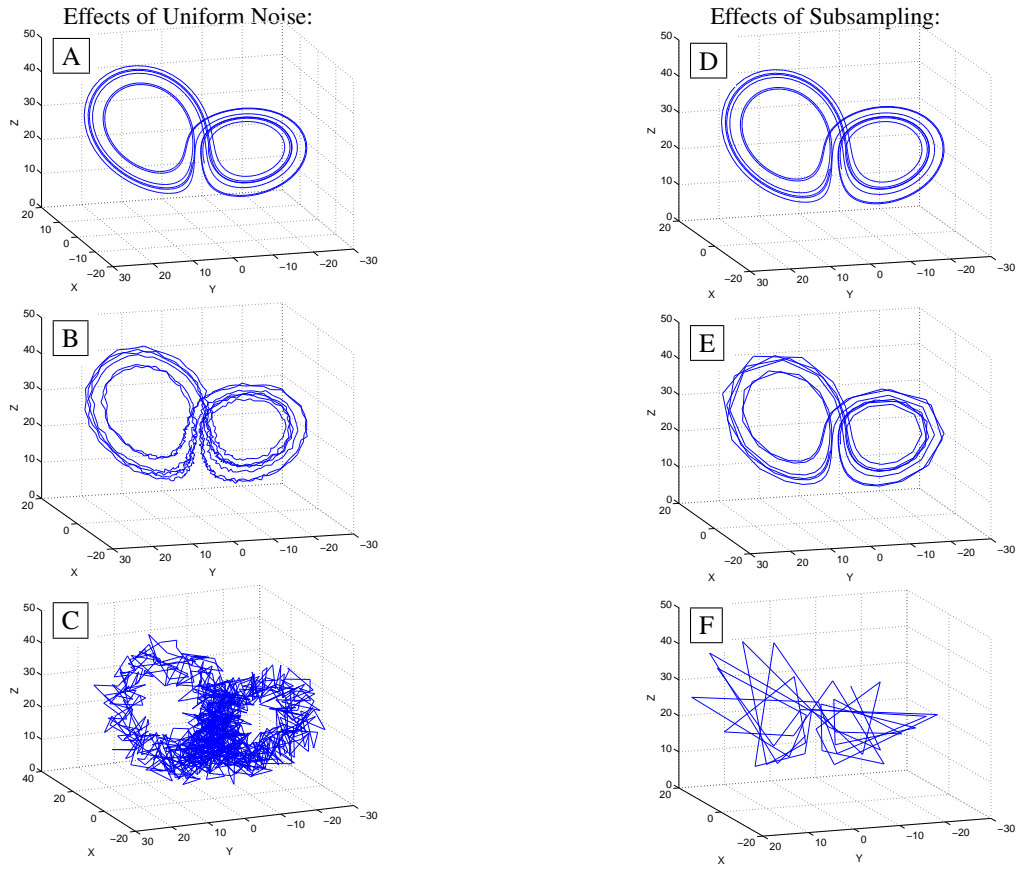


Figure 3. The visual effects of uniform noise and subsampling on a trajectory in the Lorenz '63 system. (A) No noise is added. (B) A small amount chosen uniformly on the interval $[-.5, .5]$ is added to each observation along the trajectory. We see the general shape of the Lorenz attractor is largely intact. (C) A small amount chosen uniformly on the interval $[-5, 5]$ is added to each observation along the trajectory. The trajectory is visibly messier than in the previous panels. (D) A trajectory in the L63 system where the data at every .01 model-time step is observed. (E) A trajectory in the L63 system where the data at every .05 model-time step is observed. The Lorenz attractor is still apparent. (F) A trajectory in the L63 system where the data at every .25 model-time step is observed. At this level of subsampling, no recognizable pattern is discernible.

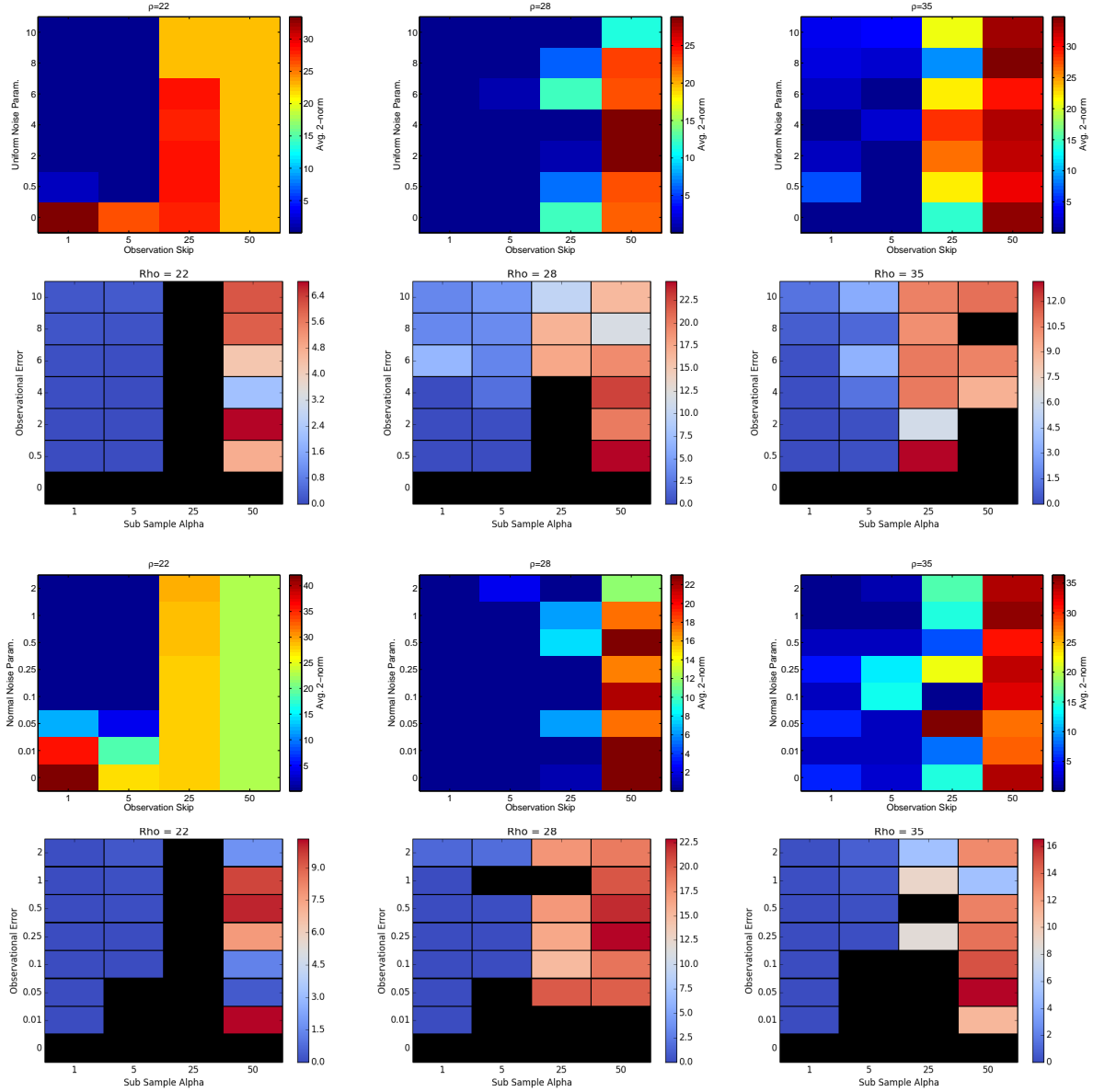


Figure 4. A glance of where GA and DA were successful at recovering the exact parameters used for the L63 system seeing all variables. Rows 1 & 3 represent results from GA, while rows 2 & 4 represent results from DA. For each plot, the y-axis indicates how much noise was added at each observation, and the x-axis indicates how often observational data was observed by the algorithms. The color is the average 2-norm of the difference between the true parameters and the algorithm's best guess of the true parameters as vectors over five separate experiments. Blue cells indicate experiment specifications where the algorithm successfully recovered the exact parameters used, while red cells indicate experiment specifications where the algorithm was less successful. Black cells in the DA plots indicate experiments that diverged. (Left Column) Results for recovering parameters of an L63 trajectory with $\rho = 22$ while noise and subsampling are varied. The system is not chaotic for this choice. (Middle Column) Results for recovering parameters of an L63 trajectory with $\rho = 28$ while noise and subsampling are varied. We see that the algorithms show success for this parameters choice despite having a chaotic system. (Right Column) Results for recovering parameters of an L63 trajectory with $\rho = 35$ while noise and subsampling are varied. The L63 is extremely chaotic for this parameter choice, and yet the algorithms have noticeable areas of success in recovering parameters.

explore the strengths and weaknesses of GA and DA.

We use Runge-Kutta method of order 4 to integrate randomly selected initial values [29]. For each parameter choose, these random initial values are integrated 10^4 iterations to allow the trajectory to approach the attractor of the system. The trajectory is then integrated 10^3 more times to obtain our “observation data” which DA and GA will attempt to fit.

3 Results

Figure 4 demonstrates the effectiveness of GA in recovering the exact parameters used in a trajectory from the L63 system as we tune the observational noise (y-axis), vary subsampling (x-axis), and change the chaotic dynamics of the system. The color in these plots indicates the average 2-norm of the difference between the true parameters and the GA’s best guess of the true parameters as vectors over five separate experiments. In general, we observe large blue regions in each plot indicating that GA recovered reasonably good approximations for the exact true parameters when every observation and every fifth observation were used. Interestingly, we find that GA performed poorly when $\rho = 22$, indicating a stable system, and no noise with complete sampling was used. The experiments were also run while allowing the GA to only use the trajectory of the X variable. For these experiments, the starting values for the Y and Z variables were treated as parameters to be recovered by the GA. We do not present any figures regarding this experiment because these experiments were largely unsuccessful at recovering the true parameters (see Discussion). The complete results of every GA experiment for every experiment specification is available in Appendix 5.1.

We exhibit results from the GA experiments to recover parameters in the L96 system in Figure 5 where the dimensionality parameter, I , is varied. Unlike the parameters in L63, the parameters h , b , and c interact nonlinearly in equation (2). Thus, failure to recover the exact true parameters used may still yield favorably results. Specifically, we used $h = 1$ and $c = b = 10$ for every L96 experiment in this study, thus GA should find that $\frac{hc}{b} = 1$, along with recovering $F = 14$, to be considered successful. Furthermore, for correct forcing parameter, F , recovering the fraction $\frac{hc}{b} = 1$ while failing to recover the exact parameters h , b , and c yields model trajectories fitting the observed data, where the true parameter choices were used. Thus the color in Figure 5 indicates the average 2-norm of the difference between the vectors $\langle 1, 14 \rangle$ and $\langle \frac{hc}{b}, F \rangle$, as guessed by the GA, across five separate

experiments. We observe that GA performs well under this metric regardless of subsampling and for a range of observation noise. Again, the raw results from the GA experiments on L96 can be found in the Appendix 5.1.

4 Discussion

This study explores the effectiveness of using a genetic algorithm (GA) in comparison to data assimilation (DA) for parameter estimation in the Lorenz ’63 (L63) and Lorenz ’96 (L96) simple climate models. We explore the effects of artificial observation noise and data sparsity for both models, while focusing on the effects of chaotic dynamics in L63 and the effects of model dimensionality in L96. GA is an intriguing alternative to DA because GA does not require model analysis before hand to be effective. For example, DA requires we find the Tangent Linear Model to our integration method and the model Jacobian matrix a priori, while GA only requires the model and the observation data to have the model fit for inputs. Furthermore, DA is capable of performing reasonably well under a variety of situations, such as varying observation noise and data sparsity. If the user has an estimate of the error growth as the model is integrated (a Tangent Linear Model), then the user can use the EKF to fit the data. However, we compare these algorithms under out-of-box conditions without special considerations for model error beforehand. Thus, favorable results from GA in a variety of experiments may indicate the robustness of using GA for parameter estimation as an alternative to DA, specifically the EKF.

We first examine the results presented in Figure 4 where we explore GAs effectiveness of estimating parameters for L63. Our first observation is that GA underperforms for $\rho = 22$ with little or no observation noise and little or no data sparsity. Furthermore, $\rho = 22$ yields a stable system attractor, rather than a chaotic one that one might expect to yield difficulties for GA as a parameter estimator. We believe this failure is explained by the stability of the system in that trajectories will spiral in towards a stable fixed point. This causes the trajectories being fit to approach a fixed point. Trajectories near a fixed point do not yield much information to the evolutionary process once the fixed point as been sufficiently approximated. However, we find that GA performs very well once normally or uniformly distributed noise has been artificially added to the observed data. We did not explore solutions to this issue further since we are more interested in GA’s effectiveness on chaotic systems, as these systems behave more closely to the atmospheric phenomenon.

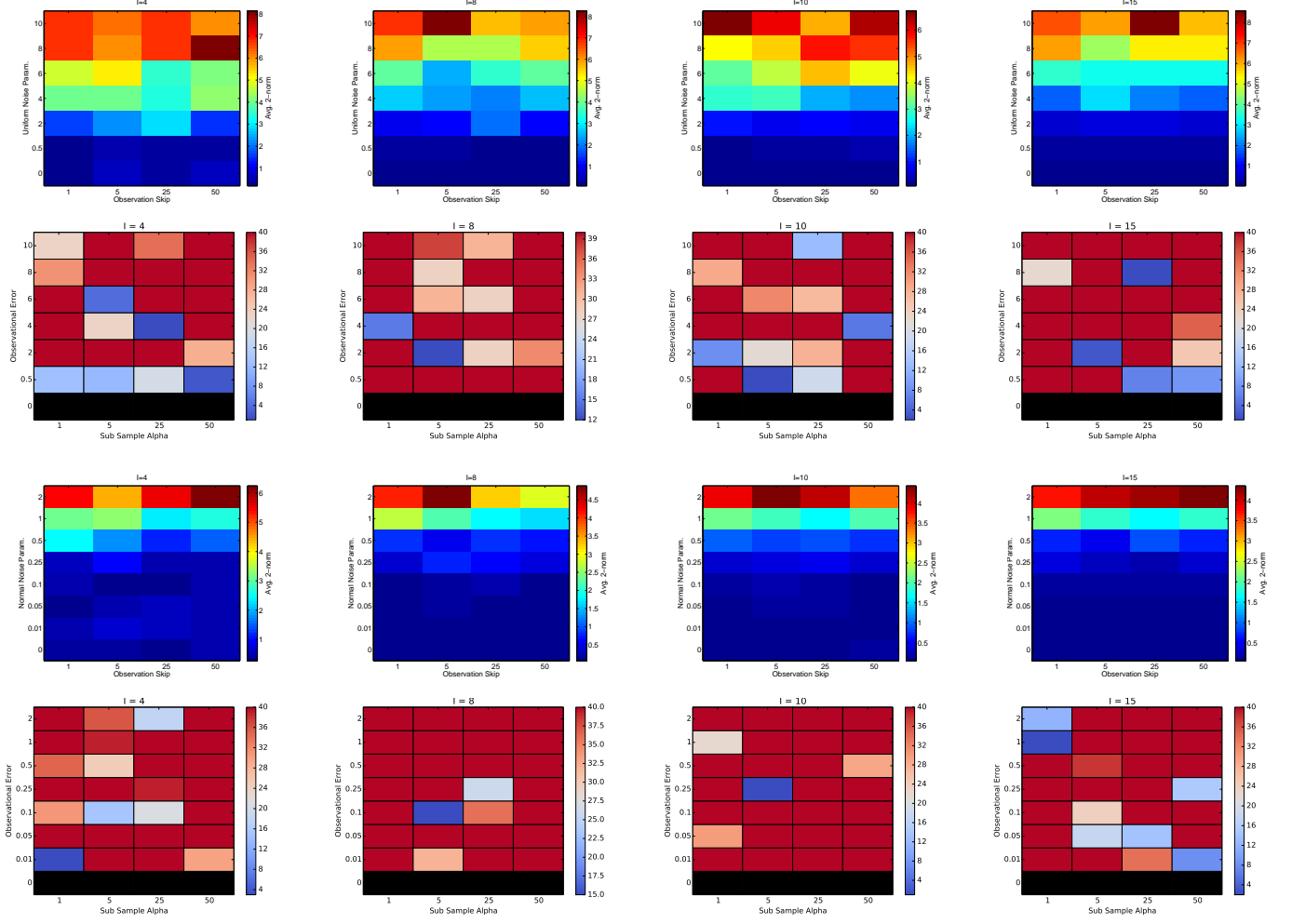


Figure 5. Fixing h, b, c, F , & J , we explore for what experimental specifications resulted in reasonable estimations for the parameters in the L96 system while varying the dimensionality parameter, $I \in [4, 8, 10, 15]$, to increase as we move left-to-right, and as we tune the observational noise (y-axis), vary subsampling (x-axis). The color indicates the average 2-norm of the difference between the vectors $\langle 1, 14 \rangle$ and $\langle \frac{hc}{b}, F \rangle$, as guessed by the algorithms, across five separate experiments. This different metric is due to the nonlinear relationship between parameters in equation (2). Rows 1 & 3 represent results from GA, while rows 2 & 4 represent results from DA. Blue cells indicate experiment specifications where GA successfully recovered the exact parameters used, while red cells indicate experiment specifications where GA was less successful. Black cells in the DA plots indicate experiments that diverged. Across all plots, we observe that GA is very successful across all subsampling and for a range of observation noise.

Examining $\rho = 28$ and $\rho = 35$, we observe that GA performs very well for small amounts of data sparsity. This observation suggests that GA performs well in parameter estimation for chaotic systems even when the dynamics have been tuned to be extremely chaotic. Furthermore, this favorable performance is robust to both normally and uniformly distributed noise in the observation

data, which indicates GA may perform well when fitting models to observed atmospheric phenomenon subject to measurement error, but with at most mild observation sparsity.

We examine the effects of model dimension on parameter estimation with GA by tuning the dimensionality parameter, I , in the L96 system, while holding the other

parameters constant ($h = 1$, $b = c = 10$, $F = 14$, $J = 4$). Notice that this choice of parameters yields a chaotic system attractor for each choice of I . We also want to highlight that we use a different metric of success for our L96 experiments to account for nonlinear interactions between the parameters (see Results). Parameter results from GA that are favorable under this metric still yield model runs that mimic the observation data despite failing to recover the exact true values for the parameters h , b , and c . Figure 5 demonstrates that GA performs very well for all choices of I , for a wide range of data sparsity, and when subject to at most mild amounts of normally and uniformly distributed observation noise. This leads us to conclude that GA yields favorable parameter estimation results for simple models regardless of dimensionality. Future experiments involving L96 will include a re-parameterizing to account for the nonlinear interactions of the parameters. This should allow GA and DA to recover the exact true values for these new parameters.

In general for DA, we see that the EKF is computationally unstable with no observational noise and performs best with frequent observations and low noise. The Kalman Filter equations are usually derived with an assumption of normally distributed noise, and as we would expect the EKF performs better when this is the true noise distribution. For most of the experiment, DA could return better results for experiment-specific tuning of covariance inflation and knowledge of the observational operator H , but here we chose not to consider these specific tunings to compare DA in a context similar to a GA. For long windows, the EKF performs much worse, and this is likely due to the nonlinearity of the model causing underestimation of the model error covariance, again something that can be tuned through covariance inflation and would be better accounted for by ensemble filters. Deriving the analytical jacobian of the L96 model for arbitrary dimension I was difficult for this deadline, and poor coding of this likely resulted in poor performance across the board on L96 for DA. While this specific issue will be resolved, it highlights the problem-specific nature of DA approaches. The next step for L96 would be an attempt to fit parameters using an ensemble-based filter. The complete results from the DA experiments can be found in Appendix 5.2.

This study demonstrates the effectiveness of a genetic algorithm for parameter estimation in toy climate models. The Lorenz '63 system allows us to demonstrate that GA's performance is robust to varying chaotic dynamics, while the Lorenz '96 system allows us to show that GA's performance is robust to model dimensionality. These observations lead us to conclude that GA may be a suitable

out-of-the-box alternative to data assimilation for parameter estimation. Future work will include exploring the effectiveness of GA and DA for parameter estimation on other systems. Of particular interest is the effectiveness and practicality of GA for parameter estimation on more complicated models since the computational cost may be intractable with the large amount of model integrations required for running GA.

References

- [1] Achtelik, M., T. Zhang, K. Kuhnlenz, and M. Buss (2009). Visual tracking and control of a quadcopter using a stereo camera system and inertial sensors. In *Mechatronics and Automation, 2009. ICMA 2009. International Conference on*, pp. 2863–2869. IEEE.
- [2] Siouris, G. M., G. Chen, and J. Wang (1997). Tracking an incoming ballistic missile using an extended interval kalman filter. *Aerospace and Electronic Systems, IEEE Transactions on* 33(1), 232–240.
- [3] Talagrand, O. (1997). Assimilation of observations, an introduction. *JOURNAL-METEOROLOGICAL SOCIETY OF JAPAN SERIES 2* 75, 81–99.
- [4] Kalman, R. and R. Bucy (1961). New results in linear prediction and filtering theory. *Trans. AMSE J. Basic Eng. D* 83, 95–108.
- [5] Savely, R., B. Cockrell, , and S. Pines (1972). Apollo experience report - onboard navigational and alignment software. *Technical Report*.
- [6] Kalnay, E. (2003). *Atmospheric modeling, data assimilation, and predictability*. Cambridge university press.
- [7] Danforth, C. M., E. Kalnay, and T. Miyoshi (2007). Estimating and correcting global weather model error. *Monthly weather review* 135(2), 281–299.
- [8] Li, H., E. Kalnay, T. Miyoshi, and C. M. Danforth (2009). Accounting for model errors in ensemble data assimilation. *Monthly Weather Review* 137(10), 3407–3419.
- [9] Reagan, A (2013). Predicting Flow Reversals in a Computational Fluid Dynamics Simulated Thermosyphon Using Data Assimilation. University of Vermont Master's Thesis, *arXiv:1312.2142 [math.DS]*.

- [10] Kalnay, E., H. Li, T. Miyoshi, S.-C. YANG, and J. BALLABRERA-POY (2007). 4-d-var or ensemble kalman filter? *Tellus A* 59(5), 758–773.
- [11] Lorenz, E. N. (1963). Deterministic nonperiodic flow. *Journal of the atmospheric sciences* 20(2), 130–141.
- [12] Saltzman, B. (1962). Finite amplitude free convection as an initial value problem-i. *Journal of the Atmospheric Sciences* 19(4), 329–341.
- [13] R. A. Kerr. *Weather Forecasts Slowly Clearing Up*. Science 9 November 2012: Vol. 338 no. 6108 pp. 734-737 DOI: 10.1126/science.338.6108.734
- [14] Farmer, J. D., and J. J. Sidorowich. *Predicting Chaotic Time Series*. Phys. Rev. Lett. 59(8) (1987): 845-848.
- [15] D. Orrell, *Role of the Metric in Forecast Error Growth: How Chaotic is the Weather?*, Tellus 54A (2002) 350362.
- [16] C. M. Danforth, J. A. Yorke. 2006. *Making Forecasts for Chaotic Physical Processes*. Physical Review Letters, 96, 144102.
- [17] E.N. Lorenz, *Predictability A problem partly solved*, in: ECMWF Seminar Proceedings on Predictability, Reading, United Kingdom, ECMWF, 1995, pp. 118.
- [18] E. N. Lorenz. *The predictability of a flow which possesses many scales of motion*. **Tellus XXI**, 289 (1968).
- [19] E.N. Lorenz, K.A. Emanuel, *Optimal sites for supplementary weather observations: simulation with a small model*, J. Atmos. Sci. 55 (1998) 399414.
- [20] Lorenz, Edward N., 1963: *Deterministic Nonperiodic Flow*. *J. Atmos. Sci.*, **20**, 130.141.
- [21] E. N. Lorenz, Proc. Seminar on Predictability 1, 1 (1996).
- [22] R. England. *Error estimates for Runge-Kutta type solutions to systems of ordinary differential equations*. *The Computer Journal* (1969) 12 (2): 166-170. doi: 10.1093/comjnl/12.2.166
- [23] D. S. Wilks, *Effects of Stochastic Parametrizations in the Lorenz 96 System*, Quart. J. Roy. Meteor. Soc. 131 (2005) 389407.
- [24] J. Horn, N. Nafpliotis, and D.E. Goldberg. *A niched Pareto genetic algorithm for multiobjective optimization*. Evolutionary Computation, 1994. IEEE World Congress on Computational Intelligence., Proceedings of the First IEEE Conference on (1994) 1: 82-87. doi:10.1109/ICEC.1994.350037
- [25] K. Deb, A. Pratap, S. Agarwal, and T. Meyarivan. *A fast and elitist multiobjective genetic algorithm: NSGA-II*. Evolutionary Computation, IEEE Transactions on 6 (2): 182-197. doi:10.1109/4235.996017
- [26] K-S Shin, Y-J Lee. *A genetic algorithm application in bankruptcy prediction modeling*. Expert Systems w/ Applications (2002) 23 (3): 321-328. doi = "http://dx.doi.org/10.1016/S0957-4174(02)00051-9"
- [27] Q. J. Wang. *The Genetic Algorithm and its Application to Calibrating Conceptual Rainfall-Runoff Models*. Water Resources Research 27 (9): 2467-2471. doi:http://dx.doi.org/10.1029/91WR01305
- [28] R. Leardi. *Application of genetic algorithm-PLS for feature selection in spectral data sets*. Journal of Chemometrics 14 (5-6): 643-655: DOI: 10.1002/1099-128X(200009/12)14:5/6;643::AID-CEM621;3.0.CO;2-E
- [29] R. England. *Error estimates for Runge-Kutta type solutions to systems of ordinary differential equations*. *The Computer Journal* (1969) 12 (2): 166-170. doi: 10.1093/comjnl/12.2.166

5 Appendix

5.1 Genetic Algorithm Experimental Results

5.1.1 GA Results for Lorenz '63 (all Variables)

Experiment ID	σ	b	ρ
1	41.237	2.669	22.009
2	45.861	2.663	22.004
3	43.252	2.675	22.023
4	43.252	2.675	22.023
5	43.650	2.656	22.010

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[0, 0]$, Use every 5 observation(s)

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[0, 0]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	29.169	2.678	21.985
2	35.405	2.657	22.048
3	43.970	2.670	22.030
4	35.405	2.657	22.048
5	38.727	2.712	21.986

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[0, 0]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	27.416	0.088	0.065
2	27.482	0.081	0.095
3	28.000	0.129	0.040
4	27.717	0.104	0.043
5	27.240	0.071	0.080

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[0, 0]$. Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.251	0.000	0.002
2	5.247	0.001	0.000
3	5.261	0.004	0.004
4	5.250	0.000	0.000
5	5.249	0.001	0.001

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-0.25, 0.25]$. Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.134	2.678	22.007
2	9.946	2.671	22.000
3	9.958	2.677	21.992
4	18.246	2.663	22.041
5	9.999	2.667	22.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-0.25, 0.25]$. Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.002	2.666	22.000
2	9.979	2.669	21.999
3	9.992	2.656	22.023
4	9.986	2.667	22.002
5	9.999	2.667	21.999

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-0.25, 0.25]$. Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	27.636	0.100	0.065
2	27.610	0.100	0.112
3	27.584	0.096	0.139
4	27.473	0.108	0.009
5	27.746	0.135	0.032

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-0.25, 0.25]$. Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.250	0.000	0.000
2	5.252	0.000	0.000
3	5.256	0.000	0.000
4	5.251	0.000	0.000
5	5.251	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-1, 1]$. Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.001	2.667	22.000
2	9.997	2.667	22.000
3	9.991	2.667	22.004
4	9.986	2.666	22.006
5	9.999	2.667	22.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-1, 1]$. Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	9.999	2.667	22.000
2	10.001	2.668	21.997
3	9.894	2.678	21.996
4	10.008	2.666	22.001
5	9.975	2.671	22.024

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-1, 1]$. Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	27.302	0.067	0.061
2	27.474	0.106	0.106
3	27.987	0.111	0.159
4	27.727	0.110	0.041
5	27.976	0.118	0.141

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-1, 1]$. Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.218	0.000	0.001
2	5.248	0.003	0.001
3	5.221	0.000	0.000
4	5.263	0.001	0.000
5	5.265	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-2, 2]$. Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	22.000
2	9.994	2.667	22.000
3	9.992	2.667	22.000
4	9.999	2.667	22.000
5	10.000	2.667	22.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-2, 2]$. Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	9.906	2.674	22.001
2	9.967	2.666	22.019
3	10.000	2.667	22.000
4	10.001	2.667	22.000
5	9.998	2.667	22.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-2, 2]$. Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	27.935	0.115	0.165
2	27.940	0.108	0.214
3	27.660	0.095	0.097
4	26.910	0.068	0.040
5	27.081	0.099	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-2, 2]$. Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.265	0.002	0.001
2	5.260	0.000	0.001
3	5.106	0.000	0.000
4	5.276	0.000	0.000
5	5.246	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-3, 3]$. Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	22.000
2	9.999	2.667	22.000
3	10.000	2.667	22.000
4	10.004	2.666	22.000
5	9.993	2.667	22.006

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-3, 3]$. Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	9.998	2.667	22.000
2	10.000	2.667	22.000
3	9.984	2.669	21.999
4	9.999	2.667	21.999
5	10.002	2.667	21.999

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-3, 3]$. Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	27.535	0.083	0.042
2	28.956	0.118	0.368
3	27.909	0.136	0.095
4	29.435	0.105	0.009
5	27.996	0.111	0.190

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-3, 3]$. Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.245	0.000	0.001
2	5.208	0.000	0.000
3	5.224	0.003	0.000
4	5.107	0.000	0.000
5	5.182	0.001	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-4, 4]$. Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.001	2.667	22.000
2	10.000	2.667	22.000
3	9.994	2.667	22.000
4	10.000	2.667	22.000
5	10.001	2.667	22.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-4, 4]$. Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	9.999	2.666	22.002
2	9.989	2.668	21.999
3	9.997	2.667	22.000
4	9.998	2.667	22.001
5	10.000	2.667	22.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-4, 4]$. Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	29.465	0.124	0.324
2	27.644	0.105	0.038
3	9.999	2.666	22.002
4	26.873	0.102	0.015
5	29.397	0.159	0.100

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-4, 4]$. Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	4.979	0.036	0.000
2	5.128	0.004	0.003
3	5.009	0.000	0.000
4	5.240	0.001	0.000
5	5.111	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-5, 5]$. Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	9.998	2.667	22.000
2	10.000	2.667	22.000
3	10.000	2.667	22.000
4	10.020	2.665	22.001
5	9.999	2.667	22.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-5, 5]$. Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.001	2.666	22.001
2	9.999	2.667	22.001
3	10.000	2.667	22.000
4	10.002	2.667	22.000
5	9.990	2.668	21.999

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-5, 5]$. Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	9.997	2.667	22.000
2	27.241	0.118	0.028
3	27.971	0.131	0.121
4	28.401	0.068	0.076
5	27.495	0.090	0.185

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Uniform on $[-5, 5]$. Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.306	0.000	0.000
2	5.168	0.002	0.000
3	5.137	0.000	0.000
4	5.044	0.008	0.000
5	5.107	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[0, 0]$. Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[0, 0]$. Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.001	2.667	27.999
2	10.000	2.667	27.999
3	10.000	2.667	28.000
4	10.005	2.665	28.006
5	9.999	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[0, 0]$. Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	21.708	0.057	0.084
4	26.448	0.172	0.065
5	10.013	2.671	27.984

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[0, 0]$. Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.216	0.582	0.000
2	7.085	0.221	3.344
3	1.862	0.000	0.002
4	10.000	2.667	28.000
5	4.925	0.057	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-0.25, 0.25]$. Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.001	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-0.25, 0.25]$. Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.022	2.669	27.996
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-0.25, 0.25]$. Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	26.775	0.362	0.000

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	15.324	2.551	27.402
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-1, 1]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	2.080	0.078	0.000
2	4.478	0.289	0.000
3	8.351	0.658	0.003
4	2.410	0.001	0.005
5	2.303	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-2, 2]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.001	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-2, 2]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.002	2.667	27.997
2	9.990	2.672	27.989
3	10.034	2.668	27.998
4	10.002	2.667	28.000
5	10.001	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-2, 2]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	9.999	2.667	27.999
2	10.000	2.667	28.000
3	10.001	2.670	27.990
4	10.000	2.667	27.999
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-2, 2]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	4.277	0.180	0.001
2	3.807	0.213	0.000
3	3.698	0.025	0.000
4	7.433	0.547	0.008
5	6.476	0.011	0.001

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-3, 3]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.001	2.667	28.000
3	10.000	2.667	28.000
4	10.327	2.678	27.912
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-2, 2]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.001	2.667	28.000
4	10.000	2.667	28.000
5	15.354	2.778	27.150

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-3, 3]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	26.323	0.005	0.238
2	18.990	0.113	0.011
3	10.002	2.667	28.000
4	9.999	2.667	27.999
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-3, 3]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	3.316	0.003	0.006
2	3.363	0.371	0.000
3	10.000	2.667	28.000
4	4.490	0.116	2.175
5	3.722	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-4, 4]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	9.998	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-4, 4]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-4, 4]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	19.104	0.089	0.011
4	10.000	2.667	28.001
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-4, 4]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	4.439	0.006	0.001
3	2.857	0.000	0.002
4	3.390	0.001	0.002
5	4.212	0.233	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-5, 5]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.017	2.668	27.998

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-5, 5]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.002	2.667	27.999
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-5, 5]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.001
2	10.000	2.667	28.000
3	10.001	2.666	28.001
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-5, 5]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	6.917	0.047	0.001
2	5.480	0.212	0.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	9.998	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[0, 0]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	10.000	2.667	35.000
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[0, 0]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	9.999	2.666	35.000
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	10.000	2.667	35.000
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[0, 0]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	14.500	0.101	0.004
2	10.005	2.667	34.995
3	10.001	2.667	35.000
4	20.873	0.291	0.004
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[0, 0]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	3.546	0.091	3.057
2	4.672	0.647	0.000
3	4.107	0.001	4.257
4	3.217	0.000	0.003
5	2.096	0.010	2.020

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	13.148	2.452	36.092
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	38.543	0.548	21.865
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.004	2.668	34.997
2	10.190	2.684	35.022
3	10.841	2.770	34.479
4	10.002	2.667	35.001
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	22.576	0.280	0.020
2	23.355	0.237	0.026
3	10.000	2.667	35.000
4	16.993	0.272	0.002
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	4.383	0.000	0.006
2	7.167	0.086	15.620
3	3.992	0.950	0.003
4	1.755	0.000	0.001
5	5.507	0.066	7.857

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-1, 1]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	20.144	2.513	33.674
3	10.000	2.667	35.000
4	10.000	2.667	35.000
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-1, 1]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.666	35.001
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	10.000	2.667	35.000
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-1, 1]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	16.212	0.189	0.012
2	31.584	0.528	25.376
3	16.810	0.083	0.021
4	19.503	0.599	0.015
5	10.001	2.668	35.002

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-1, 1]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	4.377	0.102	0.000
2	3.875	0.033	3.381
3	2.901	0.000	7.181
4	3.107	0.000	6.873
5	4.579	0.196	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-2, 2]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	10.000	2.667	35.000
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-2, 2]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.004	2.667	35.005
2	22.284	2.314	35.346
3	10.001	2.667	35.000
4	10.001	2.667	35.000
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-2, 2]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	11.174	2.695	35.274
2	16.221	0.222	0.002

Experiment ID	σ	b	ρ
1	16.903	0.006	0.003
2	21.874	0.354	0.004
3	10.000	2.667	35.000
4	10.010	2.670	34.992
5	19.825	0.264	0.003

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-3, 3]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	2.587	0.007	6.788
2	3.810	0.392	0.001
3	3.857	0.000	0.401
4	3.475	0.000	0.000
5	10.924	0.513	22.533

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-4, 4]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.001	2.667	35.001
2	10.001	2.667	35.001
3	10.776	2.696	34.936
4	20.911	0.571	29.437
5	10.156	2.762	34.299

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-4, 4]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	21.088	2.547	33.847
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	10.020	2.674	34.960
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-4, 4]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.000	2.667	35.000
3	16.883	0.252	0.003
4	2.978	0.583	30.594
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-4, 4]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	4.045	0.013	0.000
2	1.846	0.000	0.000
3	2.914	0.000	0.000
4	4.107	0.009	4.087
5	1.676	0.001	1.080

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-5, 5]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.000	2.667	34.999
3	14.619	2.764	34.293
4	10.003	2.667	35.000
5	23.363	2.456	34.278

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-5, 5]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.000	2.667	35.000
3	26.155	0.380	21.218
4	10.000	2.667	35.000
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-5, 5]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	36.942	0.004	15.524
2	10.042	2.676	34.954
3	17.973	0.433	0.002
4	19.997	0.086	0.008
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-5, 5]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	3.538	0.000	0.000
2	3.610	0.039	5.936
3	3.725	0.000	0.008
4	1.776	0.000	0.000
5	3.798	0.000	6.263

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	45.966	2.671	21.999
2	47.799	2.674	21.995
3	61.152	2.658	22.010
4	71.417	2.678	21.981
5	34.217	2.682	21.990

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	45.990	2.696	21.988
2	28.950	2.673	21.995
3	33.749	2.678	21.966
4	36.185	2.683	21.969
5	41.222	2.641	22.018

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	27.717	0.105	0.078
2	27.607	0.076	0.031
3	28.150	0.146	0.176
4	26.982	0.086	0.086
5	26.842	0.106	0.053

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.250	0.000	0.000
2	5.250	0.000	0.001
3	5.244	0.000	0.001
4	5.250	0.000	0.000
5	5.251	0.000	0.002

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.01, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	71.666	2.694	21.993
2	43.508	2.658	22.014
3	8.478	2.656	21.995
4	57.608	2.652	21.981
5	43.843	2.677	21.995

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.01, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	9.805	2.667	21.999
2	33.118	2.667	22.011
3	28.495	2.667	21.991
4	39.102	2.651	22.064
5	31.962	2.665	22.017

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.01, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	27.324	0.080	0.057
2	27.995	0.124	0.172
3	27.236	0.069	0.000
4	27.748	0.144	0.077
5	27.528	0.067	0.185

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.01, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.247	0.000	0.001
2	5.249	0.000	0.000
3	5.250	0.000	0.000
4	5.250	0.000	0.000
5	5.249	0.000	0.003

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.05, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	47.074	2.653	21.976
2	34.744	2.667	22.012
3	10.016	2.667	21.999
4	9.707	2.665	22.010
5	9.982	2.665	22.001

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.05, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.101	2.669	21.997
2	9.954	2.667	21.995
3	9.880	2.670	22.001
4	30.988	2.701	21.978
5	9.973	2.668	22.006

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.05, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	27.639	0.070	0.131
2	28.026	0.102	0.245
3	27.353	0.083	0.002
4	27.497	0.087	0.065
5	27.238	0.071	0.036

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.05, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.253	0.001	0.000
2	5.250	0.000	0.000
3	5.252	0.001	0.000
4	5.250	0.000	0.000
5	5.250	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.1, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	9.842	2.673	22.003
2	10.001	2.667	22.000
3	9.066	2.717	21.946
4	9.944	2.667	22.006
5	9.524	2.679	22.003

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.1, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	9.680	2.671	22.018
2	10.175	2.659	22.012
3	9.948	2.672	22.006
4	10.055	2.681	21.999
5	9.996	2.667	22.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.1, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	27.239	0.078	0.185
2	27.444	0.087	0.061
3	27.901	0.100	0.231
4	27.598	0.100	0.000
5	27.699	0.112	0.051

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.1, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.253	0.000	0.001
2	5.255	0.002	0.001
3	5.248	0.000	0.000
4	5.249	0.000	0.000
5	5.253	0.001	0.005

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.25, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.367	2.690	21.991
2	10.030	2.669	21.998
3	11.311	2.578	22.164
4	10.002	2.667	22.000
5	9.988	2.667	22.002

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.25, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.001	2.667	22.000
2	9.995	2.667	22.000
3	9.943	2.667	22.007
4	9.994	2.667	22.000
5	9.981	2.668	22.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.25, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	28.483	0.180	0.019
2	27.053	0.114	0.127
3	27.482	0.077	0.045
4	25.457	0.087	0.013
5	27.912	0.133	0.071

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.25, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.250	0.000	0.000
2	5.245	0.000	0.000
3	5.255	0.002	0.000
4	5.260	0.001	0.000
5	5.254	0.001	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.5, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	9.997	2.666	22.002
2	9.993	2.667	22.001
3	9.997	2.667	22.000
4	9.992	2.665	22.006
5	10.004	2.667	21.997

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.5, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	9.999	2.667	22.000
2	9.995	2.667	22.001
3	9.998	2.667	22.001
4	9.991	2.671	22.000
5	9.416	2.725	21.977

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.5, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	28.198	0.143	0.114
2	27.491	0.105	0.095
3	27.716	0.091	0.072
4	28.408	0.139	0.145
5	27.974	0.097	0.061

Experiment ID	σ	b	ρ
1	28.245	0.114	0.024
2	29.232	0.115	0.071
3	27.985	0.118	0.011
4	27.373	0.111	0.109
5	27.708	0.061	0.012

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.= 1, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.241	0.000	0.000
2	5.253	0.000	0.000
3	5.271	0.000	0.000
4	5.264	0.000	0.000
5	5.255	0.007	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.= 2, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	9.997	2.667	22.000
2	10.000	2.667	22.000
3	10.000	2.667	22.000
4	10.000	2.667	22.000
5	9.991	2.667	22.001

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.= 2, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.001	2.667	22.000
2	10.000	2.667	22.000
3	9.999	2.667	22.000
4	10.025	2.670	21.997
5	10.001	2.667	22.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.= 2, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	29.894	0.153	0.032
2	28.415	0.153	0.126
3	29.740	0.100	0.107
4	28.891	0.062	0.147
5	28.172	0.099	0.074

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.= 2, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.098	0.000	0.002
2	5.213	0.008	0.000
3	5.157	0.013	0.000
4	5.198	0.000	0.000
5	5.157	0.002	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	9.999	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	9.998	2.667	27.999

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	13.718	2.621	27.464
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	2.023	0.000	0.003
2	3.607	0.056	0.589
3	6.418	0.474	0.000
4	15.501	0.967	0.009
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.01, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.001
3	10.001	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.01, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.01, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.001	2.667	27.999
2	9.998	2.666	28.002
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	9.996	2.668	27.997

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.01, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	3.715	0.339	0.001
2	10.000	2.667	28.000
3	8.228	1.149	0.001
4	7.922	0.397	0.001
5	5.461	1.449	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.05, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.05, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.006	2.667	27.992

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.05, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	22.591	0.086	0.060
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.05, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	3.365	0.000	0.000
2	3.688	0.027	0.001
3	10.000	2.667	28.000
4	10.000	2.667	27.998
5	3.575	0.003	0.088

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.1, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.001	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.1, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.010	2.668	27.994
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.1, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.002	2.668	27.996
2	10.012	2.669	27.996
3	10.002	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.1, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	7.103	0.615	0.000
3	5.342	0.488	4.278
4	2.569	0.001	0.003
5	1.813	0.000	1.289

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.25, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	27.999
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.25, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.007	2.667	28.000
5	9.999	2.667	28.001

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.25, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.25, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	6.386	0.523	0.000
2	4.187	0.032	0.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	7.339	1.044	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.5, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.001	2.667	28.001
3	10.000	2.667	28.000
4	10.029	2.671	27.974
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.5, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.008	2.668	27.998
5	10.001	2.667	27.999

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.5, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.001	2.667	28.000
2	10.000	2.667	28.000
3	35.430	0.527	0.122
4	10.000	2.667	28.000
5	9.997	2.669	27.992

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 0.5, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	1.886	0.001	0.001
2	5.093	0.698	0.000
3	10.000	2.666	28.001
4	3.177	0.000	0.000
5	4.967	0.976	0.002

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 1, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.505	2.687	27.836
2	10.000	2.667	28.000
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 1, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	9.999	2.667	28.000
2	10.000	2.667	28.000
3	9.997	2.667	28.002
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Normal with st. dev.= 1, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	22.473	0.129	0.030
3	10.000	2.667	28.000
4	10.002	2.668	27.990
5	10.001	2.667	28.000

Experiment ID	σ	b	ρ
1	10.000	2.667	28.000
2	10.000	2.667	28.000
3	10.000	2.668	27.997
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 2, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	3.433	0.121	0.000
2	2.374	0.000	0.001
3	10.000	2.667	28.000
4	10.000	2.667	28.000
5	10.000	2.667	28.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.001	2.667	35.000
3	9.936	2.663	35.033
4	10.000	2.667	35.000
5	31.962	0.021	19.960

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	21.461	2.543	33.765
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	15.585	0.005	0.014
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	19.432	0.453	0.064
5	10.017	2.668	34.999

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	6.200	0.142	0.003
2	1.633	0.002	0.003
3	3.761	0.000	2.936
4	1.980	0.000	0.000
5	3.635	0.000	5.156

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.01, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	10.000	2.667	35.000
5	14.208	0.399	27.279

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.01, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	19.184	2.606	33.954
3	10.000	2.667	35.000
4	10.001	2.667	35.000
5	10.001	2.667	35.001

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.01, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.001	2.667	35.000
2	16.917	0.068	0.003
3	15.375	2.670	35.158
4	10.000	2.667	35.000
5	10.015	2.664	35.009

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.01, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	4.400	0.000	8.456
2	2.131	0.052	29.885
3	4.269	0.099	0.001
4	4.516	0.409	0.002
5	3.566	0.011	4.007

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.05, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.117	2.673	34.957
2	14.228	0.254	28.546
3	28.926	3.090	29.918
4	10.000	2.667	35.000
5	10.001	2.667	34.999

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.05, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.000	2.667	35.000
3	2.240	0.225	29.203
4	9.999	2.667	35.000
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.05, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	19.506	0.492	0.022
2	24.180	0.204	0.057
3	20.359	0.317	0.042
4	16.825	0.259	0.004
5	14.836	0.073	0.002

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.05, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	1.704	0.007	3.914
2	1.922	0.001	0.001
3	1.761	0.001	2.469
4	2.490	0.000	15.561
5	5.243	0.028	20.043

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.1, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	10.000	2.667	35.000
5	19.645	2.509	34.946

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.1, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.445	2.696	34.730
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	10.000	2.667	35.000
5	68.819	0.375	0.066

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.1, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.001	2.667	35.000
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	10.005	2.667	34.998
5	9.999	2.667	34.999

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.1, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	5.803	0.189	0.000
2	3.767	0.097	0.000
3	6.546	0.005	13.509
4	3.463	0.137	0.000
5	1.753	0.001	1.181

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.25, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	10.000	2.667	35.000
5	28.738	0.195	21.075

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.25, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	66.475	0.191	5.322
2	10.000	2.667	35.000
3	10.002	2.667	34.997
4	10.000	2.667	35.000
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.25, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	18.007	0.115	0.001
3	23.423	0.205	0.002
4	10.001	2.667	35.000
5	22.276	0.470	0.005

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.25, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	2.928	0.001	3.598
2	4.994	0.002	6.333
3	2.818	0.000	0.003
4	3.664	0.000	0.001
5	3.818	0.003	0.091

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.5, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	19.150	2.488	34.875
3	10.000	2.667	35.000
4	10.000	2.667	35.000
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.5, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	10.000	2.667	35.000
5	19.279	2.555	34.586

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.5, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.001	2.667	34.999
3	10.001	2.667	34.999
4	18.998	0.461	0.059
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 0.5, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	3.118	0.000	3.208
2	3.872	0.276	0.000
3	2.974	0.001	1.925
4	2.082	0.002	0.001
5	4.587	0.009	18.524

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 1, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	10.000	2.667	35.000
2	10.000	2.667	35.000
3	10.000	2.667	35.000
4	10.000	2.667	35.000
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 1, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	10.002	2.667	34.996
2	10.020	2.669	35.007
3	10.000	2.667	35.000
4	10.000	2.667	35.000
5	10.546	2.690	35.159

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 1, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	18.927	0.355	0.014
2	10.000	2.667	35.000
3	17.994	0.163	0.001
4	10.000	2.667	35.000
5	10.000	2.667	35.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 1, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	1.887	0.000	0.000
2	4.895	0.315	2.634
3	1.786	0.000	0.000
4	2.061	0.000	0.096
5	3.242	0.000	0.001

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.= 2, Use every

5.1.2 GA Results for Lorenz '63 (X_1 only)

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[0, 0]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.612	0.000	0.433
2	0.000	1.443	0.000
3	0.000	1.443	0.000
4	0.473	0.000	0.923
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[0, 0]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.000	0.000	1.847
3	0.000	0.000	1.847
4	0.000	0.864	0.270
5	0.000	0.569	1.008

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[0, 0]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	1.227	0.000	1.278
2	1.023	0.490	1.225
3	0.187	0.733	0.934
4	0.000	0.000	0.000
5	0.513	0.091	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[0, 0]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.451	0.000
2	1.692	0.896	0.000
3	0.000	0.991	0.478
4	0.000	0.000	0.000
5	0.000	0.000	1.355

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-0.25, 0.25]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.000	0.000	0.724
3	0.748	0.430	1.376
4	0.929	0.000	0.000
5	0.926	1.305	0.710

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-0.25, 0.25]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.081	0.000	0.000
2	0.000	0.000	0.518
3	0.000	1.710	1.453
4	0.000	0.000	0.297
5	0.000	1.615	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-0.25, 0.25]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	1.359	0.000	0.000
2	0.000	0.000	0.137
3	0.327	0.879	0.220
4	2.014	0.365	0.000
5	0.000	1.350	0.545

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-0.25, 0.25]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.685	0.564
2	1.003	0.933	0.956
3	0.000	0.000	0.000
4	0.000	1.988	1.369
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-1, 1]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.362	0.538	1.381
2	1.163	0.000	0.000
3	0.000	0.000	0.000
4	0.197	0.499	0.479
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-1, 1]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.069	0.024	0.449
2	0.000	0.332	0.000
3	1.190	0.136	0.677
4	1.295	0.721	0.000
5	0.766	0.079	0.559

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-1, 1]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.589	0.000	1.052
2	0.601	0.000	0.000
3	0.000	0.147	0.398
4	0.054	0.719	0.629
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-1, 1]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.314	0.000	0.000
2	1.809	0.058	0.354
3	0.000	1.053	0.000
4	0.000	0.000	0.152
5	0.447	0.876	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-2, 2]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.000	0.355	0.000
3	0.000	1.781	0.636
4	0.270	0.000	0.966
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-2, 2]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	1.584	0.000	1.681
2	0.637	0.511	1.698
3	0.161	0.000	0.000
4	0.000	1.357	0.448
5	0.000	0.000	1.529

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-2, 2]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	1.217	0.000	0.000
2	0.000	0.000	1.325
3	0.000	0.000	0.932
4	0.000	0.890	0.256
5	0.242	0.545	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-2, 2]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	1.064	0.000
2	0.523	0.000	0.725
3	0.143	0.881	0.000
4	0.000	0.000	0.850
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-3, 3]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	1.353	0.000	0.000
2	2.168	0.407	0.000
3	0.000	0.269	0.426
4	0.358	0.071	0.000
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-3, 3]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	1.051	0.000	0.306
2	0.000	0.000	0.000
3	1.225	0.183	0.000
4	0.562	0.255	0.812
5	0.574	0.000	1.155

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-3, 3]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	2.493	0.676	1.080
2	1.312	0.992	0.647
3	0.181	1.692	0.000
4	0.000	0.288	0.000
5	1.028	0.000	0.511

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-3, 3]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.902	0.240	1.175
2	2.306	0.459	1.239
3	0.259	0.553	0.508
4	0.095	0.000	0.000
5	0.000	1.107	1.208

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-4, 4]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.314
2	0.309	0.000	0.000
3	0.000	0.000	0.843
4	0.739	0.000	1.004
5	0.632	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-4, 4]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.317	1.476
2	0.298	0.000	0.536
3	0.389	0.384	0.000
4	0.301	0.000	0.000
5	0.264	0.000	0.868

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-4, 4]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	1.245	0.000	1.235
2	0.000	0.000	0.321
3	0.181	0.000	0.095
4	0.494	0.610	0.000
5	0.501	0.573	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-4, 4]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	1.276	0.069	0.000
2	0.000	0.000	0.000
3	0.000	0.398	0.884
4	0.000	0.000	0.047
5	0.000	0.000	0.157

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-5, 5]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.624	0.508	0.219
2	0.761	0.348	0.000
3	0.615	0.348	0.000
4	0.512	0.000	0.000
5	0.598	0.011	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-5, 5]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.912
2	0.317	0.514	1.452
3	0.000	0.671	1.262
4	1.283	0.000	0.000
5	0.000	0.092	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-5, 5]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	2.462	1.010	0.724
2	0.000	0.000	0.000
3	1.457	1.424	0.347
4	0.608	0.000	0.986
5	1.511	1.284	0.005

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Uniform on $[-5, 5]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.766	0.582
2	0.000	0.292	0.284
3	0.000	0.000	0.534
4	0.187	0.629	0.328
5	0.000	0.000	0.181

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Uniform on $[0, 0]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	1.736
2	0.000	0.000	0.000
3	0.000	0.320	0.956
4	0.573	0.000	1.542
5	0.000	0.000	1.284

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Uniform on $[0, 0]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	1.981	0.000
2	0.000	0.000	0.765
3	0.000	0.433	0.525
4	1.719	0.000	0.000
5	0.000	1.100	0.885

Parameters: $\sigma = 10, b = 8/3, \rho = 2$

Experiment ID	σ	b	ρ
1	1.123	0.568	0.000
2	0.644	0.000	0.000
3	0.030	0.894	0.513
4	0.288	1.081	0.000
5	1.013	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-1, 1]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.000	0.000	0.578
3	1.078	0.000	0.678
4	0.600	0.166	0.000
5	0.000	0.000	1.130

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-1, 1]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.000	0.480	0.246
3	0.000	1.414	0.000
4	2.789	0.836	0.000
5	0.537	0.024	1.459

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-1, 1]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.365	0.000
2	1.104	0.000	0.109
3	0.814	0.000	0.000
4	0.122	0.966	1.043
5	1.023	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-1, 1]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.986	0.000
2	0.000	0.229	0.000
3	0.000	0.000	0.299
4	0.296	0.680	0.516
5	0.000	1.374	1.871

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-2, 2]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.397	0.190	1.864
2	0.000	1.259	1.735
3	0.000	0.000	0.000
4	0.000	0.504	0.252
5	0.984	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-2, 2]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	1.480	0.000	1.608
2	0.000	0.151	0.000
3	0.000	0.075	0.000
4	0.000	0.000	0.782
5	0.227	1.056	1.583

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-2, 2]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.945	1.233	0.828
2	0.000	0.000	0.147
3	0.046	0.000	0.000
4	0.000	0.000	0.000
5	0.000	1.109	0.944

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-2, 2]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.702	0.000	1.079
3	0.692	0.000	0.000
4	0.993	0.000	1.665
5	0.000	0.000	0.958

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-3, 3]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.135
2	0.000	0.000	0.000
3	0.065	0.370	1.131
4	0.000	0.000	0.000
5	0.000	0.269	0.426

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-3, 3]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.394	0.476	0.000
2	0.000	0.000	0.000
3	0.982	0.000	0.508
4	1.240	0.000	2.060
5	0.464	0.000	1.601

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-3, 3]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.950	0.000
2	0.000	0.074	0.000
3	0.000	0.334	0.000
4	0.000	0.000	0.500
5	1.171	0.461	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-3, 3]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	1.796
2	0.458	0.000	0.000
3	1.019	0.000	0.912
4	0.000	0.000	0.000
5	0.073	0.829	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-4, 4]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.121	0.200	0.000
2	0.000	0.028	0.000
3	0.000	0.000	0.046
4	0.353	0.000	0.000
5	0.000	0.815	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-4, 4]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.587
2	0.000	0.891	1.027
3	0.000	0.441	0.743
4	0.108	0.000	1.152
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-4, 4]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	1.586
2	0.000	0.000	0.000
3	0.414	0.862	0.295
4	1.046	1.192	0.094
5	0.000	0.000	0.841

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-4, 4]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.000	0.326	0.000
3	1.028	0.000	0.511
4	0.000	0.605	0.573
5	1.934	0.267	0.374

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-5, 5]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.457	0.269
2	0.000	0.000	1.454
3	0.299	0.776	0.971
4	0.786	0.000	0.000
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-5, 5]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.105	0.582	0.121
2	0.224	0.000	0.347
3	0.000	2.339	0.000
4	0.000	1.947	0.000
5	0.000	0.742	1.116

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-5, 5]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.087	0.000	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.000	1.029	0.200
5	0.000	1.021	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$
noise Type: Uniform on $[-5, 5]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.593	0.103
2	0.162	0.000	0.000
3	0.969	0.000	0.000
4	0.000	0.374	1.085
5	0.000	0.425	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[0, 0]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	1.352	0.000	0.163
2	0.000	0.450	0.764
3	0.000	0.000	0.000
4	0.000	0.562	0.000
5	0.000	0.000	0.987

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[0, 0]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	1.501	1.236	0.000
2	0.956	0.172	0.000
3	0.000	0.000	0.572
4	0.495	0.000	0.000
5	1.717	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[0, 0]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.430	0.000	0.409
2	0.000	0.838	0.023
3	0.000	0.170	0.000
4	0.658	1.305	1.036
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[0, 0]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	1.863
2	0.000	0.000	0.000
3	0.000	0.000	0.728
4	1.625	0.000	1.382
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.295
2	1.131	0.000	0.000
3	1.049	0.000	2.095
4	0.000	0.665	0.000
5	0.566	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.563	0.300	0.000
3	0.000	0.000	0.182
4	0.000	0.000	0.000
5	0.000	0.000	0.363

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.450	0.566
2	0.000	0.000	1.284
3	1.678	0.436	0.388
4	1.026	0.000	1.627
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.102	1.501	0.462
2	0.294	0.000	1.315
3	0.000	0.000	0.000
4	0.000	0.266	0.953
5	0.000	0.587	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-1, 1]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	1.459
2	0.000	0.830	0.000
3	1.312	0.992	0.647
4	0.000	0.000	0.000
5	0.000	0.459	0.029

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-1, 1]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.233	0.000	0.934
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.053	0.000	0.000
5	0.699	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-1, 1]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	1.499	0.124
2	0.000	0.000	0.000
3	0.000	0.000	0.526
4	0.000	0.000	0.000
5	0.892	0.000	1.322

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-1, 1]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.197	0.988	0.000
2	0.000	2.360	0.000
3	1.679	0.000	0.000
4	0.000	0.000	0.000
5	0.577	0.000	1.619

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-2, 2]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.512	0.000	0.000
2	0.353	0.000	0.000
3	1.504	0.000	0.835
4	0.110	0.000	2.675
5	0.000	0.000	0.845

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-3, 3]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.402	0.620	0.548
2	0.000	0.844	0.000
3	1.855	1.714	0.000
4	0.000	0.000	0.000
5	0.020	0.343	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-3, 3]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.342	0.000	0.000
2	0.359	0.000	0.826
3	0.170	0.000	0.000
4	0.000	1.088	1.355
5	0.996	1.227	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-3, 3]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.000	0.000	1.454
3	1.208	0.000	0.000
4	0.314	0.000	0.256
5	0.468	0.000	0.424

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-3, 3]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.517	1.348	0.000
2	0.740	0.000	1.222
3	2.484	0.000	0.850
4	0.000	0.727	0.000
5	1.606	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-4, 4]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	1.454
2	0.000	0.000	0.861
3	0.525	0.000	1.183
4	0.000	0.167	0.000
5	0.000	0.000	0.498

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-4, 4]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.742	0.000	0.541
2	0.953	0.000	0.000
3	2.144	0.136	0.868
4	1.444	0.709	0.000
5	1.563	0.016	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-4, 4]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	1.079	0.000	0.195
2	0.024	0.798	0.005
3	0.000	0.443	0.000
4	0.510	0.000	0.000
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-4, 4]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	1.601	0.000
2	0.000	0.125	0.054
3	0.064	1.009	1.393
4	2.237	0.000	1.506
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-5, 5]$, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	2.569	0.000
2	1.306	0.000	0.000
3	0.168	0.299	1.086
4	0.000	0.000	0.727
5	1.298	0.000	1.627

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-5, 5]$, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.360	0.161
2	0.000	0.861	0.000
3	0.000	0.000	0.000
4	2.056	0.000	0.345
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-5, 5]$, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.540	0.000
2	0.000	0.780	0.000
3	0.989	0.267	0.000
4	0.441	0.725	0.000
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$
noise Type: Uniform on $[-5, 5]$, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.261
2	0.000	0.627	0.000
3	0.000	0.260	0.000
4	0.401	0.000	1.157
5	0.000	0.773	0.027

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	1.499	0.000	1.147
2	1.125	0.000	0.000
3	0.000	0.000	0.611
4	0.049	0.000	1.036
5	0.373	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.012	0.662	0.000
4	0.000	0.000	1.290
5	0.384	0.110	1.095

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.000	0.000	0.000
3	0.093	2.178	0.000
4	0.617	0.093	0.000
5	0.352	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	1.317	0.000	0.822
3	1.427	0.952	0.674
4	1.383	0.000	0.285
5	0.000	1.062	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.01, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.596	0.000
2	0.248	0.595	0.497
3	0.004	2.463	0.000
4	0.445	0.000	0.000
5	1.110	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.01, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.206	0.660
2	0.000	1.151	0.000
3	0.000	1.066	0.000
4	0.000	0.000	0.863
5	0.488	0.691	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.01, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.318
2	1.363	0.586	0.000
3	0.000	0.000	1.288
4	0.000	0.000	1.288
5	0.609	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.01, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.648	1.720	1.619
2	0.202	0.000	0.000
3	0.000	0.000	0.000
4	0.868	0.000	0.000
5	0.000	0.078	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.05, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.487	0.091	0.000
2	0.000	0.000	0.000
3	0.000	0.000	0.510
4	0.000	1.307	0.000
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.05, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.394	1.290	0.000
3	0.000	0.000	1.273
4	2.370	0.547	0.599
5	0.000	1.037	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.05, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.861
2	0.538	0.189	0.000
3	0.833	0.000	0.000
4	0.016	0.913	0.000
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.05, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.552	0.141	0.000
2	0.000	0.000	1.721
3	0.022	1.537	0.000
4	0.000	0.000	0.106
5	1.504	0.000	1.095

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.1, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.306	0.132
2	0.000	1.533	2.499
3	0.951	0.000	0.000
4	0.000	0.612	0.121
5	0.960	2.627	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.1, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.041	0.000
2	0.000	0.000	0.000
3	0.194	0.400	0.000
4	0.488	2.311	0.000
5	0.000	0.436	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.1, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	1.344	0.000	1.999
2	0.870	1.647	0.000
3	0.000	0.842	0.943
4	0.429	0.316	0.482
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.1, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.539	0.692	0.928
2	0.000	0.955	0.000
3	0.145	0.454	0.397
4	0.118	0.000	0.000
5	0.000	0.062	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.25, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.416
2	0.000	1.473	0.000
3	0.000	0.744	0.172
4	1.179	0.000	0.000
5	0.000	1.171	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.25, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.205	0.002	0.000
2	0.000	1.693	1.892
3	0.059	0.701	0.000
4	0.000	1.016	0.000
5	0.838	0.445	0.923

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.25, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	1.425	1.454	0.396
2	0.000	0.617	0.997
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	0.000	0.206	2.068

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.25, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	1.306	0.000
2	0.000	0.000	0.647
3	0.860	0.000	0.000
4	1.002	0.000	0.000
5	0.000	0.000	1.435

Parameters: $\sigma = 10, b = 8/3, \rho = 22$
noise Type: Normal with st. dev.=0.5, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.221	0.154
2	0.999	0.013	0.470
3	0.000	0.000	0.000
4	0.212	0.920	0.000
5	0.000	0.000	0.142

Experiment ID	σ	b	ρ
1	0.404	0.000	0.000
2	0.201	0.000	0.000
3	0.000	0.000	0.067
4	0.000	1.882	0.000
5	0.463	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Normal with st. dev.= 1, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.268	1.179	1.837
2	0.127	0.000	1.043
3	0.279	0.000	0.333
4	0.384	0.000	0.000
5	0.611	0.579	0.635

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Normal with st. dev.= 1, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.521	0.237	0.000
2	0.642	0.549	0.721
3	1.969	0.000	0.000
4	0.000	0.112	0.148
5	0.820	0.802	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Normal with st. dev.= 1, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	1.030
2	0.744	0.000	0.000
3	0.000	0.762	0.000
4	0.000	1.133	0.054
5	0.000	0.000	0.951

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Normal with st. dev.= 1, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.433	0.305	0.554
2	0.000	1.083	0.000
3	0.089	0.000	0.000
4	0.000	0.038	0.000
5	0.000	0.000	1.390

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Normal with st. dev.= 2, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.238	0.000	0.955
2	0.000	0.000	0.776
3	0.479	0.008	0.000
4	1.402	1.907	0.000
5	0.000	0.197	2.241

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Normal with st. dev.= 2, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.937	0.000	1.349
2	0.703	0.061	0.000
3	1.019	0.000	0.918
4	0.000	0.209	1.804
5	0.000	0.456	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Normal with st. dev.= 2, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	1.037	0.000
2	1.131	0.000	0.000
3	0.000	1.251	0.000
4	0.976	1.024	1.214
5	0.000	0.000	1.662

Parameters: $\sigma = 10, b = 8/3, \rho = 22$

noise Type: Normal with st. dev.= 2, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.015	0.852	0.304
2	0.127	0.610	0.000
3	1.476	0.631	0.272
4	0.000	0.287	0.983
5	0.000	0.000	0.036

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.879	0.000
2	0.000	0.104	0.119
3	0.000	0.024	0.204
4	0.000	0.000	0.000
5	0.000	0.000	1.227

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.828	0.000
2	0.426	0.000	0.929
3	0.000	0.075	0.000
4	1.042	0.377	0.532
5	0.631	0.450	0.868

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	1.087	0.000	0.000
2	0.000	0.185	0.730
3	0.000	1.744	0.000
4	0.000	0.000	0.000
5	1.513	0.400	1.013

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	1.911
2	1.051	0.000	0.000
3	0.000	0.000	0.580
4	0.000	0.000	0.000
5	0.489	1.645	0.247

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.01, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.739
2	1.845	0.000	1.118
3	0.000	0.000	0.000
4	0.523	0.142	0.000
5	0.000	0.609	0.394

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.01, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.312	0.000	0.330
2	0.532	0.000	0.000
3	1.287	1.695	0.000
4	0.000	0.000	0.404
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.01, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.032	0.000
2	0.598	1.667	0.827
3	0.857	0.000	0.000
4	0.000	0.000	0.657
5	0.000	0.000	2.421

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.01, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.050	0.111
2	0.000	0.000	0.095
3	0.309	0.599	0.494
4	1.167	0.000	0.360
5	0.000	0.000	1.504

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.05, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.592	0.000
2	0.000	0.760	0.000
3	0.260	0.000	0.124
4	0.000	0.904	0.344
5	0.000	0.238	0.511

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.05, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.403	0.190	0.000
2	0.000	1.099	0.000
3	0.000	0.000	0.000
4	1.659	0.851	0.000
5	0.000	0.222	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.05, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	1.496	0.000	1.261
2	1.506	0.000	0.017
3	2.172	0.000	0.000
4	0.000	0.000	0.000
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.05, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	1.304	0.000	0.000
2	0.168	0.000	0.627
3	0.218	1.991	0.539
4	1.474	0.000	0.000
5	0.000	0.000	0.255

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.1, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.422	0.694	0.688
2	0.000	0.710	0.000
3	1.353	0.000	0.566
4	1.929	0.465	0.000
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.1, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.492	0.000	0.000
2	1.403	0.000	0.000
3	0.000	0.457	0.000
4	0.000	0.000	0.000
5	0.150	0.840	1.022

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.1, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	2.349	0.000	0.000
2	0.310	0.000	0.775
3	0.000	0.000	0.046
4	0.553	1.042	0.000
5	1.649	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.1, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	1.279	0.000	0.000
2	0.000	0.043	0.000
3	0.000	0.817	0.232
4	0.000	0.000	0.000
5	0.376	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.25, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.293	0.000
2	0.000	1.780	0.800
3	0.817	2.621	0.000
4	0.714	0.155	0.000
5	0.388	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.25, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.349
2	2.359	0.000	0.701
3	0.000	0.402	0.856
4	0.567	0.000	0.168
5	1.280	1.365	0.758

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.25, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.652	0.000	0.000
2	0.000	0.278	0.000
3	0.000	0.395	0.000
4	0.000	0.000	0.915
5	0.093	0.000	0.960

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.25, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.329	0.000	1.360
2	0.062	0.000	0.664
3	0.101	0.000	0.000
4	0.000	1.464	0.000
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.5, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.129	0.000	0.000
2	0.000	0.000	0.000
3	0.179	0.601	0.000
4	0.060	0.000	0.000
5	0.000	1.044	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.= 0.5, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.100	0.000	0.268
2	0.000	0.137	0.000
3	0.549	0.000	0.747
4	0.041	0.000	0.000
5	0.486	0.234	0.409

Experiment ID	σ	b	ρ
1	0.225	0.214	0.000
2	0.000	1.371	2.943
3	0.000	0.325	0.179
4	0.211	0.000	0.705
5	0.500	0.000	0.537

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.=2, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.547	0.719	0.000
2	0.000	0.000	0.000
3	0.000	0.997	0.000
4	0.015	1.209	0.000
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.=2, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.155	0.233	0.538
2	0.000	0.000	0.000
3	0.981	0.000	0.000
4	0.000	0.063	1.212
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.=2, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.605	0.000	1.139
2	0.000	0.000	0.000
3	0.000	0.000	0.000
4	0.351	1.208	0.000
5	1.916	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 28$

noise Type: Normal with st. dev.=2, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.271	0.948
2	0.000	0.987	0.570
3	0.000	1.106	2.719
4	0.000	0.000	1.147
5	0.000	0.000	2.064

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	1.379	0.000
2	1.089	0.000	1.702
3	0.000	0.000	0.000
4	1.546	0.218	0.009
5	0.000	0.375	0.273

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.937	0.000
2	0.629	0.184	0.000
3	0.000	0.000	0.000
4	0.000	0.000	1.932
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.272	0.000	0.809
2	0.000	0.000	0.000
3	0.027	0.000	0.000
4	0.121	0.000	0.000
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	1.474
2	0.317	0.000	0.000
3	0.265	1.155	1.470
4	0.000	0.000	0.365
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.01, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.987	0.000
2	0.000	0.000	0.000
3	0.999	0.013	0.470
4	0.000	0.096	1.395
5	1.442	0.000	1.131

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.01, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	1.333	0.000	0.000
2	0.696	0.000	0.240
3	0.000	0.000	0.000
4	0.739	0.000	0.606
5	1.535	0.141	0.007

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.01, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.072	0.000	1.530
2	0.000	1.558	0.493
3	0.000	0.907	0.199
4	0.000	2.245	0.000
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.01, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.460	0.000	0.000
2	0.000	1.476	0.000
3	0.000	0.000	0.142
4	0.000	0.000	0.259
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.05, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.858	0.717	0.000
2	0.960	2.627	0.000
3	0.467	0.000	2.365
4	0.000	0.799	0.000
5	1.361	0.000	0.918

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.05, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.018	0.276	0.000
2	0.816	0.879	0.548
3	0.000	1.282	0.000
4	0.000	0.000	1.073
5	0.000	0.000	0.788

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.05, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.035	0.000	0.005
3	0.000	0.000	0.338
4	0.000	0.000	0.122
5	0.000	0.185	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.05, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	2.354	0.924	0.142
2	0.000	0.000	0.000
3	0.000	0.899	2.636
4	0.000	0.899	2.636
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.1, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.074	0.926	0.000
2	0.000	0.000	0.544
3	0.093	0.362	0.432
4	0.187	0.777	0.000
5	0.954	1.414	0.997

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.1, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	1.139	0.000
2	0.000	0.504	1.216
3	0.032	0.920	0.000
4	1.151	0.000	0.000
5	0.068	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.1, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	1.621
2	0.000	0.000	0.857
3	0.000	0.359	2.951
4	0.000	0.000	0.000
5	0.000	0.000	2.307

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.1, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.647
2	0.000	0.000	0.173
3	0.229	0.383	0.000
4	0.375	0.000	1.317
5	0.000	0.636	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.25, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	1.451	0.000	0.000
2	0.000	0.000	0.123
3	0.248	0.433	1.068
4	0.571	0.000	0.000
5	0.519	0.896	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.25, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.605	0.758	0.221
2	0.000	1.530	0.000
3	0.000	0.000	0.000
4	0.000	0.000	0.000
5	0.994	0.000	2.093

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.25, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	2.268	0.000
2	0.000	0.000	0.000
3	0.000	0.520	0.000
4	0.000	0.739	0.761
5	0.000	0.424	0.366

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.25, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.000
2	0.000	2.098	0.000
3	0.000	0.000	0.000
4	0.371	0.000	0.000
5	0.000	0.182	0.460

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.5, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.234	0.000
2	1.394	0.000	0.000
3	0.000	0.000	0.574
4	0.309	0.000	0.000
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.5, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.126	0.000	0.000
2	0.276	0.000	1.654
3	0.737	2.341	0.084
4	0.000	0.772	0.000
5	0.453	0.332	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.5, Use every 25 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.227	0.000
2	0.048	0.000	1.542
3	0.000	0.000	0.000
4	0.000	1.416	0.168
5	0.000	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=0.5, Use every 50 observation(s)

Experiment ID	σ	b	ρ
1	0.528	0.000	1.039
2	1.730	0.000	1.461
3	0.201	0.000	0.027
4	0.622	1.290	0.000
5	0.089	3.087	0.015

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=1, Use every 1 observation(s)

Experiment ID	σ	b	ρ
1	2.034	0.000	0.692
2	1.945	0.000	0.985
3	0.000	0.000	0.000
4	0.000	0.324	0.000
5	0.861	0.000	0.000

Parameters: $\sigma = 10, b = 8/3, \rho = 35$

noise Type: Normal with st. dev.=1, Use every 5 observation(s)

Experiment ID	σ	b	ρ
1	0.000	0.000	0.669
2	0.391	0.208	2.518
3	0.000	0.920	0.162
4	0.027	1.441	1.400</

Experiment ID	σ	b	ρ
1	0.000	0.413	0.000
2	0.358	1.208	1.162
3	0.185	0.544	1.074
4	0.032	0.962	1.665
5	0.000	0.000	0.096

5.1.3 GA Results for Lorenz '96

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[0, 0]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	1.007	9.959	10.011	14.000
2	0.716	12.796	8.801	13.981
3	0.111	27.804	3.006	13.977
4	0.223	24.096	5.157	13.881
5	0.188	6.501	4.077	13.635

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[0, 0]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.404	5.084	6.267	13.586
2	0.183	6.657	4.052	13.687
3	0.501	5.258	7.359	13.690
4	0.213	5.782	4.249	13.659
5	0.136	27.812	3.959	13.928

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[0, 0]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.116	29.779	3.222	13.980
2	0.157	8.324	4.079	13.756
3	0.565	15.336	7.679	13.966
4	0.432	5.307	6.262	13.594
5	1.036	9.838	9.994	14.025

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[0, 0]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.167	5.904	3.459	13.641
2	0.108	10.939	2.585	13.741
3	0.414	6.278	6.453	13.717
4	0.152	26.915	4.235	13.890
5	0.230	6.178	5.379	13.670

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.150	33.799	3.870	14.000
2	0.116	26.084	2.583	13.869
3	0.128	25.235	3.201	13.714
4	0.402	17.255	6.370	13.584
5	0.155	24.293	3.812	13.915

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.072	19.349	1.887	13.991
2	0.430	7.399	5.888	14.553
3	0.135	13.496	2.840	13.927
4	0.230	27.778	4.180	14.158
5	0.543	11.583	8.510	13.759

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.084	17.943	2.229	14.183
2	0.093	18.731	2.222	13.589
3	0.080	26.975	2.328	13.491
4	0.154	23.234	3.910	13.746
5	0.100	23.264	2.689	13.936

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.532	13.463	7.863	14.341
2	0.240	10.424	7.121	14.325
3	0.106	15.701	2.519	13.547
4	0.233	25.224	4.801	14.099
5	0.084	23.930	2.112	13.934

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-1, 1]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.023	27.288	0.608	14.460
2	0.604	14.037	6.108	15.527
3	0.035	26.367	0.805	12.343
4	0.841	14.974	5.905	16.229
5	0.274	50.577	5.184	14.778

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-1, 1]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.444	28.821	4.339	14.935
2	0.444	28.821	4.339	14.935
3	1.044	11.688	6.371	12.309
4	0.006	21.649	0.329	10.188
5	0.189	34.356	3.594	13.557

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-1, 1]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.206	47.003	3.709	11.685
2	0.889	12.023	5.942	16.278
3	0.272	41.118	3.812	14.998
4	0.269	27.382	4.470	14.831
5	0.082	55.034	1.097	18.670

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-1, 1]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.048	21.993	1.191	10.552
2	0.138	30.749	2.779	13.382
3	0.059	35.284	1.225	13.891
4	0.059	35.284	1.225	13.891
5	0.088	49.045	1.704	14.757

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-2, 2]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.531	19.850	5.329	13.684
2	2.126	14.844	7.840	11.845
3	0.271	43.965	2.402	23.656
4	1.099	14.213	8.254	10.477
5	0.948	16.192	8.912	12.948

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-2, 2]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.499	35.878	3.803	20.394
2	0.166	38.702	1.716	12.048
3	1.043	14.940	6.440	17.135
4	0.307	38.406	2.733	16.310
5	1.053	10.927	6.068	15.521

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-2, 2]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.041	31.907	0.967	13.479
2	1.099	12.645	5.472	15.889
3	1.766	14.214	5.378	16.702
4	0.070	49.563	0.876	14.857
5	0.142	52.299	1.687	18.830

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-2, 2]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	1.321	14.943	7.079	15.731
2	0.191	27.253	1.614	16.812
3	0.045	38.834	0.531	20.886
4	1.252	16.145	4.915	17.873
5	0.147	30.239	1.600	15.864

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-3, 3]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	1.440	15.294	6.048	10.671
2	0.683	24.935	3.196	21.426
3	1.062	13.887	3.815	15.994
4	0.145	32.644	1.167	16.930
5	0.441	19.959	2.713	16.053

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-3, 3]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	1.521	14.427	5.197	14.346
2	0.470	20.396	2.219	19.601
3	0.690	21.510	2.731	21.820
4	0.021	41.180	0.221	16.131
5	0.034	28.214	0.247	16.113

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-3, 3]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	1.484	12.092	6.667	11.663
2	2.615	8.759	6.309	10.730
3	1.715	11.097	3.761	13.261
4	2.022	11.045	5.607	10.893
5	0.769	9.943	2.669	13.999

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-3, 3]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	1.142	17.845	5.649	18.291
2	1.711	15.995	7.548	16.544
3	1.310	12.210	3.759	17.865
4	2.197	11.975	5.732	14.509
5	0.107	32.158	0.877	14.069

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-4, 4]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	1.325	15.633	4.705	13.415
2	0.979	25.639	4.436	18.708
3	1.470	11.331	5.340	12.563
4	3.009	15.454	6.554	15.847
5	1.277	20.931	4.818	27.737

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-4, 4]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.018	26.975	0.100	22.855
2	0.329	39.186	2.446	17.256
3	2.982	12.535	11.275	18.205
4	2.059	11.594	7.432	10.875
5	2.524	12.733	5.783	9.397

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-4, 4]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.116	32.468	0.657	23.587
2	1.389	14.530	3.983	18.789
3	2.584	12.876	5.954	7.952
4	0.205	19.499	1.185	16.207
5	1.256	27.318	5.153	14.632

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-4, 4]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	1.835	12.739	5.490	14.026
2	1.065	13.739	4.748	9.558
3	0.071	43.456	0.404	30.274
4	2.224	8.908	3.660	7.551
5	0.019	21.719	0.081	19.856

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	3.521	17.906	10.432	12.441
2	1.705	9.953	3.790	6.392
3	1.531	9.110	2.586	11.549
4	1.490	12.008	5.555	11.267
5	2.751	8.028	4.734	2.933

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	3.316	8.335	6.178	6.572
2	1.050	18.539	4.033	16.155
3	2.003	12.280	3.999	13.460
4	1.992	8.384	2.997	6.811
5	2.821	13.072	7.781	11.051

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.132	25.253	0.734	21.213
2	2.383	11.625	4.697	8.556
3	0.193	25.111	1.105	17.337
4	2.292	10.843	4.457	9.524
5	2.309	8.032	3.834	8.428

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	1.411	7.742	2.521	13.074
2	3.175	11.820	7.344	10.725
3	0.215	19.996	0.861	21.006
4	2.204	9.091	5.934	9

Experiment ID	h	c	b	F
1	0.075	30.612	2.463	13.827
2	0.439	15.343	7.380	14.024
3	0.190	23.824	4.386	13.667
4	0.118	30.259	3.446	13.982
5	0.201	24.998	4.768	14.151

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-1, 1]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.165	46.826	4.010	13.955
2	0.033	28.073	1.504	12.689
3	0.195	29.962	3.409	14.101
4	0.104	27.743	2.164	13.417
5	0.012	37.450	0.290	13.720

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-1, 1]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.140	39.850	2.931	14.877
2	0.065	31.495	2.383	13.211
3	0.141	39.160	4.173	14.572
4	0.062	34.611	1.549	14.724
5	0.324	36.662	4.917	14.526

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-1, 1]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.652	16.783	4.846	16.546
2	0.094	40.096	2.061	15.922
3	0.098	43.688	1.893	15.566
4	0.147	29.939	2.408	13.799
5	0.145	39.212	2.044	13.900

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-1, 1]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.210	27.285	3.321	15.632
2	0.130	40.629	2.815	13.863
3	0.111	32.272	2.807	12.519
4	0.090	29.018	2.211	14.166
5	0.083	36.626	2.663	13.372

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-2, 2]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	1.442	13.972	6.212	13.417
2	0.848	24.447	5.611	16.810
3	2.016	11.546	7.873	12.758
4	0.622	13.731	4.210	15.579
5	0.414	20.113	2.561	16.491

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-2, 2]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.114	22.830	1.022	13.121
2	0.598	17.491	4.855	14.909
3	0.109	24.467	0.964	14.599
4	3.013	12.525	8.372	14.970
5	1.156	11.906	5.377	16.251

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-2, 2]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.468	13.577	4.370	13.353
2	0.548	30.905	6.572	15.277
3	0.522	13.699	3.055	11.880
4	3.258	9.883	9.141	13.699
5	0.781	20.394	4.972	14.779

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-2, 2]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.057	41.356	1.033	14.967
2	0.082	22.710	0.676	16.882
3	0.657	17.800	7.405	12.708
4	0.075	51.118	1.029	16.746
5	0.976	14.398	5.631	12.046

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-3, 3]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	2.261	18.612	7.677	16.961
2	0.669	12.553	2.146	12.934
3	1.113	16.278	6.711	11.301
4	0.619	15.734	2.767	15.195
5	3.447	17.188	10.459	14.842

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-3, 3]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	1.625	11.705	4.903	15.236
2	0.968	9.137	2.269	16.639
3	0.053	32.758	0.623	14.419
4	0.058	36.429	0.894	13.227
5	0.172	18.903	1.221	13.113

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-3, 3]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	1.068	21.031	6.507	9.814
2	1.578	17.836	6.867	15.040
3	1.578	17.836	6.867	15.040
4	0.114	28.955	0.921	15.273
5	1.490	12.206	4.392	12.776

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-3, 3]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.779	15.415	3.322	11.350
2	3.179	12.057	7.638	16.060
3	1.500	16.664	8.889	15.722
4	3.500	10.071	6.651	10.697
5	1.035	12.873	3.716	15.069

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-4, 4]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	3.083	13.484	7.238	13.402
2	1.724	15.795	4.629	16.023
3	1.775	12.074	4.478	9.870
4	4.336	16.536	9.489	11.490
5	0.307	25.308	1.490	19.441

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-4, 4]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	3.036	13.856	9.183	16.544
2	0.149	43.502	1.176	18.066
3	3.061	13.479	8.913	12.281
4	0.056	32.213	0.391	13.774
5	2.003	13.916	5.672	12.008

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-4, 4]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	1.124	13.162	4.630	15.004
2	3.033	11.989	5.936	10.599
3	0.043	46.163	0.485	11.931
4	1.621	16.773	5.177	15.955
5	1.066	18.779	4.044	17.886

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-4, 4]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	3.862	12.611	6.109	10.357
2	2.065	8.266	4.529	9.654
3	1.381	11.434	3.012	9.826
4	0.176	31.880	1.127	16.545
5	2.020	12.246	5.622	12.826

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	1.549	14.933	3.876	12.132
2	1.293	11.771	2.770	12.610
3	2.751	12.486	4.575	11.014
4	3.149	9.937	4.920	10.226
5	4.721	15.773	7.737	8.702

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.111	33.748	0.623	16.603
2	1.795	11.380	2.543	4.808
3	3.450	9.489	4.248	6.149
4	2.741	12.093	4.351	11.811
5	2.075	11.536	5.466	8.114

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	1.814	11.501	4.043	9.418
2	1.879	11.021	3.799	5.851
3	1.759	13.095	5.054	11.526
4	3.489	11.940	6.865	12.672
5	0.262	18.093	1.187	14.906

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	1.203	9.992	4.724	8.026
2	2.259	11.121	4.938	8.999
3	3.506	12.829	7.359	12.328
4	2.049	11.704	5.277	7.877
5	3.471	11.555	7.580	12.488

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[0, 0]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.049	33.115	1.488	13.924
2	0.104	31.318	3.112	13.870
3	0.104	31.318	3.112	13.870
4	0.104	31.318	3.112	13.870
5	0.077	37.578	2.665	13.965

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[0, 0]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.353	18.361	6.522	13.981
2	0.375	17.835	7.079	13.892
3	0.998	10.025	9.988	13.953
4	0.719	11.948	8.960	13.950
5	0.457	14.358	8.323	13.936

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[0, 0]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.565	14.102	8.009	13.967
2	0.306	20.735	6.797	14.020
3	0.490	14.526	7.834	13.967
4	0.050	30.393	1.550	13.944
5	0.110	35.103	3.422	13.970

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[0, 0]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.152	27.731	4.226	13.917
2	0.796	11.296	9.186	13.958
3	0.038	35.298	1.182	14.008
4	0.212	27.117	5.179	13.964
5	0.182	26.311	4.900	13.974

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.270	19.904	5.849	13.800
2	0.097	31.976	2.774	13.979
3	0.097	31.976	2.774	13.979
4	0.006	27.787	0.183	13.991
5	0.165	28.241	4.019	13.961

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.438	15.074	7.217	13.974
2	0.081	32.355	2.565	13.808
3	0.063	32.392	1.731	14.152
4	0.238	19.936	5.726	13.638
5	0.071	39.179	2.339	13.954

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.373	15.491	6.489	14.104
2	0.082	36.951	2.451	13.876
3	0.065	39.098	2.242	13.940
4	0.050	37.958	1.605	13.779
5	0.335	17.133	6.279	13.643

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4</$

Experiment ID	h	c	b	F
1	0.391	13.721	4.977	14.999
2	0.066	39.141	0.838	13.409
3	0.264	35.812	3.652	16.141
4	0.188	33.939	3.412	15.371
5	0.188	33.939	3.412	15.371

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-3, 3]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.146	32.325	1.465	14.659
2	0.441	15.445	2.269	13.188
3	0.619	18.042	3.693	12.601
4	0.611	35.106	3.936	16.044
5	1.329	18.831	5.046	15.048

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-3, 3]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.913	18.496	4.093	17.356
2	1.681	13.599	5.592	16.393
3	1.076	16.848	4.427	17.456
4	1.249	12.560	3.494	14.473
5	1.153	15.142	5.624	12.878

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-3, 3]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	1.342	15.635	4.459	9.718
2	0.064	38.851	0.716	17.633
3	0.995	17.411	4.098	16.958
4	1.193	14.382	4.482	17.365
5	1.193	14.382	4.482	17.365

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-3, 3]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	4.229	14.231	10.535	19.773
2	0.748	17.888	3.504	14.021
3	0.081	27.905	0.640	16.818
4	1.883	13.971	6.189	13.641
5	0.117	30.060	0.843	14.235

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-4, 4]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	1.644	17.413	6.184	15.214
2	1.328	13.228	4.148	13.537
3	2.664	15.193	7.208	15.503
4	1.497	18.970	4.437	15.481
5	1.294	12.324	3.630	13.362

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-4, 4]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	3.821	11.521	7.123	9.174
2	1.356	15.980	4.567	15.436
3	0.596	20.845	2.413	16.390
4	1.291	11.822	3.996	13.923
5	0.697	23.208	3.416	14.883

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-4, 4]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.107	27.811	0.783	15.096
2	1.320	10.734	3.171	8.976
3	0.391	24.370	2.469	22.308
4	2.277	9.700	4.631	11.705
5	0.420	24.282	1.903	18.743

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-4, 4]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.003	36.058	0.033	13.003
2	2.431	13.231	6.723	11.253
3	3.043	13.324	8.098	6.469
4	2.498	9.075	4.241	10.226
5	0.646	22.551	2.862	18.958

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	2.646	11.256	5.192	7.168
2	2.328	16.247	4.956	14.674
3	2.049	11.667	3.569	13.109
4	4.546	19.068	9.896	14.979
5	0.130	38.135	1.093	17.677

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	2.374	13.225	4.606	11.189
2	2.518	15.094	5.095	13.337
3	3.072	14.315	6.263	15.380
4	0.233	18.237	0.735	16.988
5	3.140	14.174	7.237	14.817

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.432	17.378	1.915	10.701
2	0.515	19.563	2.288	15.553
3	2.284	15.464	4.779	13.091
4	2.766	11.944	5.953	13.439
5	0.423	14.014	1.177	15.674

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	4.323	10.684	5.455	8.488
2	2.325	16.811	6.370	16.263
3	2.325	16.811	6.370	16.263
4	2.325	16.811	6.370	16.263
5	0.781	20.609	3.550	18.385

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[0, 0]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.137	33.161	3.953	13.998
2	0.170	26.111	4.495	13.982
3	0.151	28.673	4.017	13.983
4	0.151	28.673	4.017	13.983
5	0.151	28.673	4.017	13.983

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[0, 0]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.593	13.828	8.312	13.958
2	0.535	13.754	7.959	13.973
3	0.260	22.166	5.835	13.993
4	0.260	22.166	5.835	13.993
5	0.260	22.166	5.835	13.993

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[0, 0]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.168	27.371	4.335	13.989
2	0.204	22.762	5.075	13.998
3	0.056	37.015	1.770	14.009
4	0.552	13.426	7.849	14.042
5	0.684	12.036	8.751	13.955

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[0, 0]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.619	13.206	8.498	13.959
2	0.144	26.814	3.835	13.999
3	0.270	18.984	5.891	13.942
4	0.270	18.984	5.891	13.942
5	0.194	25.052	4.682	13.988

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.189	25.220	4.283	13.946
2	0.265	21.672	5.410	13.715
3	0.287	19.367	5.316	13.979
5	0.414	15.200	6.896	14.210

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.146	33.857	3.532	14.131
2	0.296	17.027	6.274	13.724
3	0.042	25.081	1.223	14.105
4	0.114	30.980	3.562	13.808
5	0.129	32.866	3.361	13.972

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.234	22.731	5.513	14.207
2	0.058	31.893	1.745	13.753
3	0.178	28.466	4.503	13.894
4	0.143	27.914	3.470	14.091
5	0.296	20.566	5.929	14.020

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-0.25, 0.25]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.089	33.245	2.557	13.982
2	0.197	25.927	4.531	13.817
3	0.053	38.013	1.632	13.981
4	0.076	32.768	2.330	13.739
5	0.022	29.622	0.635	13.868

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-1, 1]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.019	31.868	0.496	13.744
3	0.038	36.025	0.805	13.958
4	0.142	38.036	3.181	13.858
5	0.170	45.145	6.125	13.494

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-1, 1]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.150	29.802	3.503	13.561
2	0.166	24.309	4.464	13.550
3	0.074	29.434	1.729	14.255
4	0.052	30.509	1.324	14.393
5	0.305	26.557	4.209	15.731

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-1, 1]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.145	42.949	3.260	13.505
2	0.058	30.907	1.470	13.458
3	0.083	38.782	2.098	13.257
4	0.172	35.685	3.074	13.965
5	0.068	39.899	1.712	14.179

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-1, 1]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.086	40.794	1.828	14.206
2	0.190	36.385	4.217	13.819
3	0.087	35.637	1.817	14.287
4	0.221	24.368	4.257	13.622
5	0.275	22.410	4.447	13.836

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-2, 2]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	1.020	17.143	5.296	13.664
2	1.365	12.419	9.101	11.810
3	0.229	21.329	2.307	12.976
4	0.229	21.329	2.307	12.976
5	0.229	21.329	2.307	12.976

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-2, 2]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.059	30.455	0.681	11.983
2	0.550	20.029	4.347	14.268
3	0.966	19.225	4.360	16.546
4	3.719	9.746	8.960	13.275
5	1.324	14.827	5.627	15.255

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-2, 2]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.309	20.022	2.560	14.370
2	0.796	17.596	5.557	13.689
3	0.118	34.403	1.244	14.177
4	0.796	18.844	5.175	13.568
5	0.304	35.141	3.117	15.952

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-2, 2]$, Use every 50 observation(s)

Experiment ID

Experiment ID	h	c	b	F
1	2.326	15.894	5.018	12.462
2	2.431	10.746	5.707	11.135
3	2.431	10.746	5.707	11.135
4	0.107	34.115	0.658	18.138
5	2.325	10.492	5.169	10.631

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	2.217	15.852	5.596	11.452
2	2.487	9.820	4.123	4.818
3	2.468	11.904	4.908	11.028
4	2.468	11.904	4.908	11.028
5	2.468	11.904	4.908	11.028

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	1.567	15.308	3.685	12.438
2	3.036	15.489	5.618	12.055
3	4.584	12.849	8.348	12.612
4	2.754	13.571	6.504	11.831
5	1.220	16.363	2.907	12.608

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	3.026	14.234	5.499	12.692
2	2.680	13.721	4.345	7.355
3	2.680	13.721	4.345	7.355
4	2.578	17.736	5.069	17.366
5	0.845	21.583	2.820	18.656

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Uniform on $[-5, 5]$, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.033	31.585	0.178	19.955
2	1.359	14.943	3.222	15.837
3	2.807	10.476	4.994	10.367
4	1.950	18.202	6.119	13.482
5	1.112	13.917	2.754	13.967

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.231	5.129	4.715	13.643
2	0.211	22.562	4.951	13.812
3	0.998	10.007	9.988	13.999
4	0.111	11.532	2.790	13.682
5	0.456	8.870	7.506	13.900

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.153	29.119	3.953	13.875
2	0.236	25.002	5.537	13.829
3	0.812	11.598	9.055	13.959
4	0.168	6.501	3.470	13.642
5	0.205	5.410	4.376	13.618

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.297	4.961	5.734	13.712
2	0.149	5.884	2.973	13.696
3	1.000	10.000	10.001	13.999
4	1.001	9.992	10.008	14.001
5	0.316	20.797	6.434	13.910

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.128	8.309	2.746	13.597
2	0.136	27.658	3.840	13.825
3	0.455	6.443	7.612	13.714
4	0.190	6.284	3.902	13.711
5	0.999	10.009	9.995	14.001

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.01, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.136	7.982	2.972	13.785
2	0.245	22.245	5.511	13.888
3	0.245	22.245	5.511	13.888
4	0.341	6.497	6.931	13.696
5	0.116	7.945	2.545	13.552

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.01, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.378	4.526	6.651	13.618
2	0.229	5.343	4.316	13.521
3	0.131	29.517	3.771	13.870
4	0.176	5.810	3.841	13.738
5	0.371	4.213	6.103	13.630

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.01, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.067	35.129	2.213	13.957
2	0.148	7.591	3.369	13.625
3	0.090	17.343	2.276	13.573
4	0.233	5.307	6.638	13.636
5	0.338	5.338	6.208	13.720

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.01, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.269	5.683	5.405	13.707
2	0.028	24.783	0.856	13.805
3	0.012	15.861	0.395	13.597
4	0.690	12.988	8.434	13.914
5	0.172	6.179	3.580	13.555

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.05, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.129	9.021	2.885	13.681
2	0.132	29.717	3.538	14.056
3	0.080	31.244	2.572	13.771
4	0.070	17.544	1.864	13.814
5	0.066	31.767	2.112	13.712

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.05, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.301	4.551	6.081	13.847
2	0.104	16.692	2.515	13.783
3	0.169	6.387	3.559	13.754
4	0.438	10.042	7.201	13.697
5	0.093	21.947	2.429	13.864

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.05, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.126	26.111	3.665	13.698
2	0.225	8.059	5.640	13.642
3	0.109	11.499	2.561	13.667
4	0.078	21.700	2.228	13.638
5	0.168	7.777	3.813	13.658

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.05, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.288	6.926	5.646	13.557
2	0.316	17.020	5.939	13.602
3	0.145	6.814	3.038	13.711
4	0.316	17.020	5.939	13.602
5	0.036	27.417	1.190	13.682

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.1, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.192	29.376	4.406	14.441
2	0.137	11.891	3.436	13.901
3	0.159	5.857	3.237	13.940
4	0.166	30.346	3.912	14.122
5	0.167	6.940	3.422	13.849

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.1, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.249	23.557	5.425	14.045
2	0.108	30.072	2.694	13.644
3	0.037	32.746	1.096	13.781
4	0.252	18.689	4.785	13.547
5	0.092	21.800	2.246	13.830

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.1, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.130	33.332	3.279	13.887
2	0.166	6.852	3.150	14.091
3	0.123	24.179	3.136	14.038
4	0.045	18.313	1.173	13.741
5	0.171	23.327	3.718	14.018

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.1, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.072	21.017	1.926	13.726
2	0.093	11.971	2.230	14.608
3	0.175	24.895	4.220	13.480
4	0.175	24.895	4.220	13.480
5	0.175	24.895	4.220	13.480

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.25, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.082	19.770	1.833	14.357
2	0.050	27.874	1.294	13.562
3	0.168	34.106	3.674	13.653
4	0.092	33.419	2.052	14.086
5	0.094	19.410	2.643	13.022

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.25, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.082	40.008	2.085	14.667
2	0.208	31.659	4.530	13.058
3	0.098	32.099	2.338	14.945
4	0.102	16.332	2.893	13.167
5	0.077	15.078	1.888	13.157

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.25, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.079	32.947	2.627	13.701
2	0.870	11.836	8.675	14.077
3	0.431	11.177	6.633	13.156
4	0.116	30.127	2.914	13.614
5	0.067	32.963	1.534	13.674

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.25, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.050	23.645	1.359	13.414
2	0.582	14.142	6.481	14.256
3	0.407	16.923	6.292	13.441
4	0.056	18.209	1.355	13.334
5	0.089	20.995	2.023	14.301

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.5, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.062	38.758	1.402	14.604
2	0.222	24.180	3.946	15.950
3	0.622	22.999	5.878	13.852
4	0.540	24.210	4.120	17.525
5	0.641	20.824	4.085	16.892

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.5, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.312	40.077	4.470	14.279
2	0.489	40.972	6.082	15.077
3	0.145	48.060	2.587	14.183
4	0.056	31.601	1.151	16.400
5	0.088	32.318	1.956	13.420

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.5, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.091	25.437	1.700	13.870
2	0.074	41.740	1.720	12.931
3	0.156	34.112	2.798	12.932
4	0.080	41.417	1.607	16.031
5	0.100	30.989	2.487	14.161

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 4, J = 4$
noise Type: Normal with st. dev.=0.5, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.226	27.075	3.506	13.580
2	0.091	41.271	1.612	15.737
3	0.108	23.525	2.186	15.217
4	0.056	20.485	1.250	12.371
5	0.190	39.021	3.141	12.626

Experiment ID	h	c	b	F
1	2.425	6.683	4.449	10.832
2	3.240	6.639	6.960	5.216
3	0.097	35.830	0.726	18.504
4	0.113	40.898	1.169	18.936
5	1.359	13.971	3.984	19.213

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.049	30.533	1.489	13.876
2	0.143	25.882	3.805	13.929
3	0.115	32.629	3.223	13.992
4	0.057	37.152	1.875	13.973
5	0.995	10.015	9.976	14.011

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.511	14.787	7.775	13.966
2	0.021	25.215	0.573	13.966
3	0.147	30.016	4.040	13.972
4	0.512	15.043	7.176	13.984
5	0.537	14.843	8.113	13.979

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.175	26.143	4.542	13.977
2	0.113	32.497	3.568	13.896
3	0.240	21.061	5.839	13.981
4	0.460	15.340	7.101	13.941
5	0.294	18.980	5.788	13.919

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.078	34.114	2.590	13.995
2	0.203	23.054	4.757	13.970
3	0.588	13.824	8.762	14.012
4	0.230	21.128	5.515	13.945
5	0.156	28.770	4.538	13.905

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.01, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.534	14.410	8.713	13.917
2	0.487	14.631	7.867	13.948
3	0.074	31.804	2.170	13.917
4	0.160	25.542	4.114	13.948
5	0.670	12.636	8.558	13.998

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.01, Use every 5 observation(s)

Experiment ID	h	c	b	F
2	0.064	33.856	1.947	13.950
3	0.898	11.018	9.745	14.017
4	0.279	19.241	6.113	13.916
5	0.241	24.052	5.697	13.904

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.01, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.200	24.806	4.850	13.969
2	0.779	11.484	9.662	13.973
3	0.073	35.749	2.359	13.944
4	0.133	30.762	3.835	13.918
5	0.185	25.687	4.601	13.917

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.01, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.148	30.451	4.190	14.060
2	0.046	29.698	1.370	13.941
3	0.131	32.190	3.897	13.995
4	0.108	33.070	3.256	13.920
5	0.074	34.671	2.349	14.042

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.05, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.058	26.572	1.731	13.994
2	0.154	29.895	4.137	14.133
3	0.405	15.722	6.457	13.978
4	0.258	20.157	5.564	13.931
5	0.395	17.305	7.017	13.959

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.05, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.045	28.976	1.290	13.873
2	0.063	36.592	2.172	13.904
3	0.684	11.421	9.995	13.947
4	0.300	19.819	6.630	13.875
5	0.584	13.974	9.009	13.992

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.05, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.548	14.667	7.601	14.040
2	0.128	31.691	3.601	13.893
3	0.330	19.670	6.726	13.962
4	0.674	12.747	9.289	14.031
5	0.068	37.703	2.172	13.992

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.05, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.141	30.380	4.234	14.001
2	0.168	27.811	4.750	13.850
3	0.661	12.973	10.404	13.859
4	0.179	26.361	4.229	13.935
5	0.086	34.938	2.607	14.013

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.1, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.253	22.582	5.658	13.880
2	0.102	31.806	3.316	13.987
3	0.095	34.448	2.754	13.985
4	0.300	17.745	6.292	13.945
5	0.172	26.795	4.196	13.947

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.1, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.469	14.729	6.754	14.138
2	0.286	16.909	5.599	13.983
3	0.123	32.790	3.324	13.926
4	0.055	33.856	1.877	13.748
5	0.220	23.668	4.692	14.046

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.1, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.053	28.395	1.712	13.740
2	0.072	32.865	2.278	13.835
3	0.162	24.690	4.235	13.995
4	0.163	31.493	4.585	14.228
5	0.168	30.402	4.071	14.189

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.1, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.495	14.199	6.361	13.944
2	0.694	11.849	8.725	14.094
3	0.229	22.575	5.310	14.018
4	0.150	29.192	3.899	14.258
5	0.221	23.094	4.536	14.041

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.25, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.121	35.620	2.783	14.437
2	0.271	19.994	5.467	14.134
3	0.074	33.501	2.220	14.173
4	0.142	27.655	3.069	14.163
5	0.130	40.875	3.282	13.805

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.25, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.140	37.474	3.144	14.889
2	0.438	17.091	6.535	12.873
3	0.264	20.220	4.731	14.458
4	0.245	22.183	4.837	13.849
5	0.075	36.878	2.047	14.782

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.25, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.157	31.605	3.647	13.812
2	0.091	38.034	2.610	14.123
3	0.071	43.961	1.867	14.531
4	0.091	26.572	2.345	13.554
5	0.507	12.331	5.511	15.005

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.25, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.127	27.811	3.401	14.286
2	0.211	26.100	4.137	13.388
3	0.045	36.788	1.295	13.709
4	0.079	30.684	2.628	14.071
5	0.090	38.616	2.076	14.736

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.5, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.175	30.162	4.231	13.541
2	0.311	20.732	3.934	14.250
3	0.230	24.257	3.639	14.485
4	0.427	17.610	3.551	15.558
5	0.058	30.653	1.613	14.426

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.5, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.127	29.109	3.299	12.931
2	0.187	28.438	4.214	14.028
3	0.201	28.270	8.617	13.876
4	0.079	48.081	1.952	13.922
5	0.177	25.978	3.727	13.932

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.5, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.091	21.532	1.931	14.416
2	0.194	28.040	4.767	14.310
3	0.216	30.326	2.713	14.264
4	0.097	31.417	3.906	12.843
5	0.004	26.558	0.163	13.424

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=0.5, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.159	39.510	3.921	14.311
2	0.009	22.994	0.263	13.760
3	0.402	18.016	4.672	14.643
4	0.130	32.362	2.245	14.185
5	0.015	45.179	0.370	13.708

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=1, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.037	29.278	0.960	13.641
2	0.332	16.963	3.085	15.943
3	0.256	41.035	2.839	13.761
4	0.250	28.206	2.094	16.019
5	0.203	32.960	1.444	18.178

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 8, J = 4$

noise Type: Normal with st. dev.=1, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.109	36.991	1.852	1

Experiment ID	h	c	b	F
1	0.259	19.184	6.080	13.931
2	0.050	35.972	1.600	13.967
3	0.050	35.972	1.600	13.967
4	0.050	35.972	1.600	13.967
5	0.050	35.972	1.600	13.967

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.01, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.203	23.640	4.922	13.959
2	0.373	16.453	6.978	14.000
3	0.168	28.755	4.419	13.948
4	0.123	29.685	3.365	13.989
5	0.037	30.268	1.169	13.857

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.01, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.049	33.285	1.529	13.945
2	0.142	28.434	4.125	13.901
3	0.265	21.153	6.015	14.050
4	0.160	28.668	4.329	13.970
5	0.435	15.861	7.597	13.969

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.01, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.148	26.539	3.879	13.941
2	1.014	9.947	10.312	13.946
3	0.174	27.049	4.585	13.979
4	0.843	11.046	9.411	13.959
5	0.952	10.421	9.555	13.961

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.01, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.128	32.803	3.899	13.921
2	0.209	22.098	5.146	13.958
3	0.181	27.160	4.639	13.987
4	0.021	30.924	0.710	13.962
5	0.608	13.346	8.283	14.010

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.05, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.081	35.356	2.490	13.892
2	0.165	24.803	4.116	14.019
3	0.737	11.868	9.618	13.975
4	0.280	19.015	5.622	13.905
5	0.180	27.233	4.603	14.075

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.05, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.086	36.393	2.637	13.862
2	0.655	12.154	7.466	14.020
3	0.484	14.838	7.417	13.993
4	0.050	36.177	1.514	14.076
5	0.061	35.538	2.072	13.869

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.05, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.068	32.053	2.002	14.118
2	0.012	35.829	0.381	13.998
3	0.094	31.578	2.812	13.897
4	0.764	11.249	9.266	14.150
5	0.308	18.840	6.361	13.882

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.05, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.022	26.997	0.657	13.865
2	0.023	35.114	0.804	13.872
3	0.472	15.476	7.778	13.905
4	0.158	26.728	4.101	14.058
5	0.588	13.507	8.404	13.980

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.1, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.124	30.587	3.752	13.870
2	0.025	30.734	0.853	13.919
3	0.074	41.052	2.272	14.136
4	0.436	16.387	7.939	14.106
5	0.302	19.947	5.731	14.044

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.1, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.090	33.038	2.808	13.809
2	0.039	36.476	1.248	14.087
3	0.259	20.458	5.308	14.199
4	0.631	13.157	8.809	13.953
5	0.059	28.236	1.855	13.635

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.1, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.111	32.961	3.301	13.937
2	0.243	23.204	5.276	14.022
3	0.170	27.550	3.799	14.237
4	0.066	30.656	1.796	14.052
5	0.080	35.308	2.478	14.055

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.1, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.268	21.677	5.365	14.147
2	0.051	32.286	1.556	13.960
3	0.299	18.098	6.123	14.060
4	0.020	30.982	0.639	14.037
5	0.199	25.608	4.794	13.921

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.25, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.050	32.678	1.571	14.247
2	0.213	23.280	4.794	13.979
3	0.138	31.275	4.070	13.797
4	0.212	18.650	4.612	12.970
5	0.110	22.329	2.638	13.912

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.25, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.163	32.511	3.857	14.370
2	0.137	26.379	2.955	13.988
3	0.137	26.379	2.955	13.988
4	0.086	33.641	1.807	13.760
5	0.086	33.641	1.807	13.760

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.25, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.130	35.960	3.731	13.872
2	0.150	30.218	3.880	14.442
3	0.110	33.423	3.008	14.211
4	0.130	31.770	4.156	13.377
5	0.129	38.214	3.053	14.174

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.25, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.076	37.562	2.305	13.501
2	0.082	35.390	2.361	13.890
3	0.082	35.390	2.361	13.890
4	0.136	34.925	3.538	13.977
5	0.136	34.925	3.538	13.977

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.5, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.088	50.233	2.155	14.170
2	0.081	39.285	1.666	14.535
3	0.258	31.113	4.734	13.952
4	0.210	27.724	3.015	12.722
5	0.090	21.506	1.810	13.692

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.5, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.124	32.896	4.307	14.045
2	0.210	34.654	3.500	13.919
3	0.099	44.425	2.156	13.700
4	0.071	37.140	1.979	13.470
5	0.017	35.176	0.734	12.820

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.5, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.160	37.195	3.849	14.419
2	0.128	38.780	2.564	13.880
3	0.081	30.704	1.920	13.137
4	0.152	47.105	4.052	13.770
5	0.223	44.685	4.624	14.458

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=0.5, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.270	27.016	4.592	14.599
2	0.219	24.185	3.372	13.671
3	0.010	27.182	0.334	13.310
4	0.019	29.884	0.484	14.484
5	0.118	37.126	2.164	14.493

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=1, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.588	18.663	3.320	15.553
2	0.243	14.525	2.212	16.130
3	0.642	15.249	4.684	14.879
4	0.563	21.170	5.346	15.714
5	0.083	47.122	1.224	14.065

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=1, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.346	17.926	3.075	14.522
2	0.394	21.975	7.687	14.981
3	0.499	19.794	3.613	14.988
4	0.231	48.943	3.368	13.271
5	0.830	23.646	4.895	15.078

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=1, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.050	28.497	1.084	12.964
2	0.303	31.217	4.181	15.405
3	0.041	27.158	0.634	13.730
4	0.046	38.927	0.909	13.338
5	1.089	12.384	7.642	17.142

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=1, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.275	23.518	4.591	12.800
2	1.185	12.023	6.123	14.916
3	0.176	51.086	2.950	15.319
4	0.762	19.665	4.953	15.291
5	1.543	12.092	7.934	15.711

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=2, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	1.006	27.687	5.858	16.692
2	1.139	16.272	4.747	12.531
3	1.476	15.961	5.956	13.392
4	1.647	14.224	4.968	12.476
5	1.151	15.157	3.280	15.616

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 10, J = 4$

noise Type: Normal with st. dev.=2, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.179	25.565	4.642	13.893
2	0.159	26.505	4.255	13.922
3	0.183	24.506	4.726	13.994
4	0.183	24.506	4.726	13.994
5	0.183	24.506	4.726	13.994

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.05, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.243	20.408	6.036	13.894
2	0.109	32.622	3.170	13.954
3	0.181	25.530	5.025	13.946
4	0.024	30.606	0.717	14.050
5	0.061	38.038	2.008	13.932

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.05, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.122	33.785	3.378	14.084
2	0.125	30.789	3.814	13.985
3	0.032	31.118	0.994	14.055
4	0.125	30.789	3.814	13.985
5	0.129	30.176	3.539	13.958

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.05, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.446	15.093	7.596	13.958
2	0.088	32.712	2.836	13.776
3	0.157	27.710	4.534	13.961
4	0.043	30.739	1.221	13.993
5	0.233	21.445	5.687	13.951

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.05, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.528	13.789	8.004	14.001
2	0.014	34.664	0.450	13.891
3	0.550	14.261	8.514	14.016
4	0.320	18.014	6.199	14.026
5	0.273	20.315	5.594	13.991

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.1, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.411	14.585	7.199	13.844
2	0.136	29.613	3.835	14.066
3	0.435	14.674	7.232	13.866
4	0.103	34.511	3.099	14.070
5	0.240	23.296	5.332	14.005

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.1, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.081	33.955	2.282	13.902
2	0.099	30.462	2.909	13.858
3	0.147	29.657	3.899	13.951
4	0.418	15.902	7.313	13.903
5	0.120	31.607	3.506	14.079

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.1, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.178	28.357	4.286	14.116
2	0.080	28.312	2.563	13.832
3	0.118	31.712	3.385	13.979
4	0.118	31.712	3.385	13.979
5	0.118	31.712	3.385	13.979

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.1, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.178	28.357	4.286	14.116
2	0.080	28.312	2.563	13.832
3	0.118	31.712	3.385	13.979
4	0.118	31.712	3.385	13.979
5	0.118	31.712	3.385	13.979

5.2 Data Assimilation Experimental Results

5.2.1 Lorenz '63 (all Variables)

Parameters: $\sigma = 10, b = 8/3, R = 22$
noise Type: normal with magnitude 0, using every 1 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 22$
noise Type: normal with magnitude 0, using every 5 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 22$
noise Type: normal with magnitude 0, using every 25 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 22$
noise Type: normal with magnitude 0, using every 50 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Experiment ID	h	c	b	F
1	0.110	35.110	3.293	13.907
2	0.170	26.153	4.440	13.810
3	0.115	31.332	3.507	13.847
4	0.115	31.332	3.507	13.847
5	0.115	31.332	3.507	13.847

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.25, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.118	33.327	2.764	13.660
2	0.119	34.927	2.824	13.976
3	0.141	29.156	3.594	14.191
4	0.058	37.642	1.843	13.580
5	0.058	37.642	1.843	13.580

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.25, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.131	27.270	3.650	14.031
2	0.399	17.501	7.113	13.415
3	0.062	38.356	1.769	13.991
4	0.057	31.983	1.748	13.798
5	0.071	36.540	2.347	13.809

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.25, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.026	29.708	0.715	13.939
2	0.148	30.038	4.157	14.419
3	0.293	20.807	6.073	13.803
4	0.129	28.714	3.046	13.968
5	0.006	39.913	0.239	13.900

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.25, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.024	32.678	0.752	14.016
2	0.096	33.169	2.749	14.286
3	0.170	28.229	4.138	14.010
4	0.137	37.256	3.839	13.495
5	0.137	37.256	3.839	13.495

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.5, Use every 1 observation(s)

Experiment ID	h	c	b	F
1	0.036	30.829	1.022	14.238
3	0.113	27.153	2.220	13.869
4	0.282	21.449	4.064	13.104
5	0.282	21.449	4.064	13.104

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.5, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.105	34.624	1.877	14.261
2	0.045	31.077	1.205	13.528
3	0.267	19.209	3.990	14.114
4	0.267	19.209	3.990	14.114
5	0.267	19.209	3.990	14.114

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.5, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.109	36.403	2.553	12.706
2	0.046	32.343	1.121	13.787
3	0.107	36.729	2.047	14.055
4	0.114	27.913	3.519	13.529
5	0.033	21.916	0.962	12.853

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=0.5, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.016	35.210	0.401	13.722
2	0.081	35.924	1.948	13.277
3	0.123	34.668	3.223	12.980
4	0.378	20.239	5.065	13.741
5	0.209	24.982	3.587	13.987

5.2 Data Assimilation Experimental Results

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 22$
noise Type: normal with magnitude 0, using every 50 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 22$
noise Type: normal with magnitude 0.01, using every 1 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 22$
noise Type: normal with magnitude 0.01, using every 25 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 22$
noise Type: normal with magnitude 0.01, using every 50 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$

Experiment ID	h	c	b	F
1	0.154	26.369	2.083	11.689
2	0.556	11.155	3.295	14.452
3	0.597	29.554	5.045	15.943
4	0.168	29.731	1.802	15.108
5	0.339	36.388	4.133	13.151

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=1, Use every 5 observation(s)

Experiment ID	h	c	b	F
1	0.114	28.492	1.463	13.749
2	0.684	22.822	4.220	17.232
3	0.097	32.497	1.494	14.061
4	0.564	16.160	3.984	14.705
5	0.074	42.506	1.470	14.158

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=1, Use every 25 observation(s)

Experiment ID	h	c	b	F
1	0.763	26.120	7.372	11.215
2	0.277	23.069	2.647	13.832
3	0.837	14.565	5.515	13.687
4	0.076	37.083	1.173	14.680
5	0.100	27.870	1.793	13.516

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=1, Use every 50 observation(s)

Experiment ID	h	c	b	F
1	0.339	20.779	3.404	14.406
2	0.043	37.335	0.533	14.697
3	0.2031	14.287	8.737	14.799
4	0.327	30.677	3.220	14.329
5	0.528	17.783	4.542	14.691

Parameters: $h = 1, c = 10, b = 10, F = 14, I = 15, J = 4$
noise Type: Normal with st. dev.=2, Use every 1 observation(s)

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.01, using every 50 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.05, using every 1 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	2.6667	9.9995	28.0
1	2.6667	9.9995	28.0
2	2.6667	9.9995	28.0
3	2.6667	9.9995	28.0
4	2.6667	9.9995	28.0

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.05, using every 5 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.05, using every 25 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	0.37317	-0.072476	24.786
1	0.37317	-0.072476	24.786
2	0.37317	-0.072476	24.786
3	0.37317	-0.072476	24.786
4	0.37317	-0.072476	24.786

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.05, using every 50 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	-0.0014538	18.474	26.944
1	-0.0014538	18.474	26.944
2	-0.0014538	18.474	26.944
3	-0.0014538	18.474	26.944
4	-0.0014538	18.474	26.944

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.1, using every 1 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	2.6667	9.9984	28.001
1	2.6667	9.9984	28.001
2	2.6667	9.9984	28.001
3	2.6667	9.9984	28.001
4	2.6667	9.9984	28.001

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.1, using every 5 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	2.6664	9.989	28.007
1	2.6664	9.989	28.007
2	2.6664	9.989	28.007
3	2.6664	9.989	28.007
4	2.6664	9.989	28.007

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.1, using every 25 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	0.90877	5.6695	24.781
1	0.90877	5.6695	24.781
2	0.90877	5.6695	24.781
3	0.90877	5.6695	24.781
4	0.90877	5.6695	24.781

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.1, using every 50 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	-0.002865	17.547	25.662
1	-0.002865	17.547	25.662
2	-0.002865	17.547	25.662
3	-0.002865	17.547	25.662
4	-0.002865	17.547	25.662

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.25, using every 1 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	2.6667	9.9922	28.003
1	2.6667	9.9922	28.003
2	2.6667	9.9922	28.003
3	2.6667	9.9922	28.003
4	2.6667	9.9922	28.003

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.25, using every 5 observation(s) of

first 3 variables.

Experiment ID	b	σ	R
0	2.6649	9.9544	28.017
1	2.6649	9.9544	28.017
2	2.6649	9.9544	28.017
3	2.6649	9.9544	28.017
4	2.6649	9.9544	28.017

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.25, using every 25 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	0.34094	9.9971	25.664
1	0.34094	9.9971	25.664
2	0.34094	9.9971	25.664
3	0.34094	9.9971	25.664
4	0.34094	9.9971	25.664

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.25, using every 50 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	-0.00017067	0.49258	20.093
1	-0.00017067	0.49258	20.093
2	-0.00017067	0.49258	20.093
3	-0.00017067	0.49258	20.093
4	-0.00017067	0.49258	20.093

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.5, using every 1 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	2.667	9.9736	28.01
1	2.667	9.9736	28.01
2	2.667	9.9736	28.01
3	2.667	9.9736	28.01
4	2.667	9.9736	28.01

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.5, using every 5 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	2.6709	9.8612	27.989
1	2.6709	9.8612	27.989
2	2.6709	9.8612	27.989
3	2.6709	9.8612	27.989
4	2.6709	9.8612	27.989

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.5, using every 25 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	0.0091763	4.0844	36.266
1	0.0091763	4.0844	36.266
2	0.0091763	4.0844	36.266
3	0.0091763	4.0844	36.266
4	0.0091763	4.0844	36.266

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 0.5, using every 50 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	-0.00028445	-0.73762	29.22
1	-0.00028445	-0.73762	29.22
2	-0.00028445	-0.73762	29.22
3	-0.00028445	-0.73762	29.22
4	-0.00028445	-0.73762	29.22

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 1, using every 1 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	2.6684	9.9272	28.019
1	2.6684	9.9272	28.019
2	2.6684	9.9272	28.019
3	2.6684	9.9272	28.019
4	2.6684	9.9272	28.019

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 1, using every 5 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 1, using every 25 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 1, using every 50 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	-0.0017706	19.211	24.894
1	-0.0017706	19.211	24.894
2	-0.0017706	19.211	24.894
3	-0.0017706	19.211	24.894
4	-0.0017706	19.211	24.894

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 2, using every 1 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	2.5137	9.6374	28.815
1	2.5137	9.6374	28.815
2	2.5137	9.6374	28.815
3	2.5137	9.6374	28.815
4	2.5137	9.6374	28.815

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 2, using every 5 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	2.52	11.138	27.675
1	2.52	11.138	27.675
2	2.52	11.138	27.675
3	2.52	11.138	27.675
4	2.52	11.138	27.675

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 2, using every 25 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	0.0073123	1.1599	34.544
1	0.0073123	1.1599	34.544
2	0.0073123	1.1599	34.544
3	0.0073123	1.1599	34.544
4	0.0073123	1.1599	34.544

Parameters: $\sigma = 10, b = 8/3, R = 28$

noise Type: normal with magnitude 2, using every 50 observation(s) of first 3 variables.

Experiment ID	b	σ	R
0	-0.019088	21.408	22.691
1	-0.019088	21.408	22.691
2	-0.019088	21.408	22.691
3	-0.019088	21.408	22.691
4	-0.019088	21.408	22.691

Parameters: $\sigma = 10, b = 8/3, R = 35$

noise Type: normal with magnitude 0, using every 1 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 35$

noise Type: normal with magnitude 0, using every 5 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 35$

noise Type: normal with magnitude 0, using every 25 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 35$

noise Type: normal with magnitude 0, using every 50 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 35$

noise Type: normal with magnitude 0.01, using every 1 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	nan	nan	nan
1	nan	nan	nan
2	nan	nan	nan
3	nan	nan	nan
4	nan	nan	nan

Parameters: $\sigma = 10, b = 8/3, R = 35$

noise Type: normal with magnitude 0.01, using every 5 observation(s) of first 1 variables.

Experiment ID	b	σ	R
0	0.33049	12.796	32.947
1	0.33049	12.796	32.947
2	0.33049	12.796	32.947
3	0.33049	12.796	32.947
4	0.33049	12.796	32.947

Parameters: $\sigma = 10, b = 8/3, R = 35$
noise Type: uniform with magnitude 10, using every 50 observation(s) of

first 3 variables.

Experiment ID	b	σ	R
0	0.53181	7.5997	33.001
1	0.53181	7.5997	33.001
2	0.53181	7.5997	33.001
3	0.53181	7.5997	33.001
4	0.53181	7.5997	33.001