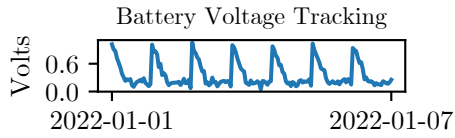
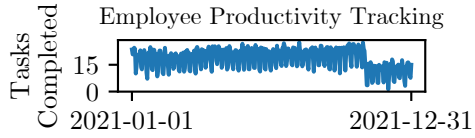


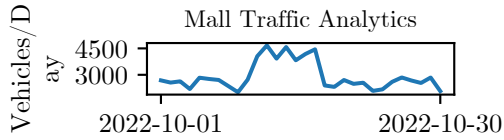
A scientist is measuring the temperature in an industrial freezer over two weeks, with a new reading taken every 6 hours. An unexpected power outage occurs in the middle of this period lasting 3 days. This causes the freezer temperature to rise before it is restored and begins dropping again.



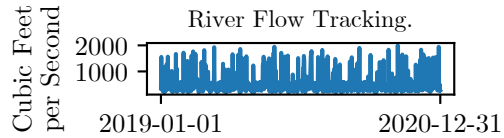
A system is being monitored where the variable being tracked is the battery discharge voltage of an autonomous vehicle over one week's night-time operations (when the solar power is not occurring). The sample rate is once every hour. The time series would be expected to show downward trend during operation and spikes when the vehicle stops and starts.



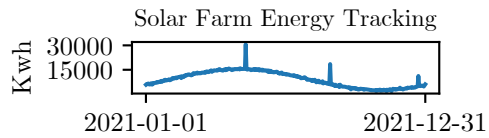
This scenario considers an employee's average daily productivity in terms of tasks completed, across a year. The annual holiday season (November-December) might lead to decreased productivity given the common disruptions and distractions. This time series uses a daily sample rate captured over the span of a year.



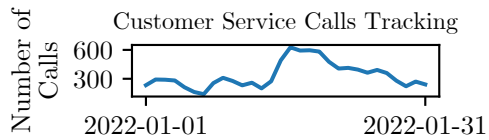
We monitor the daily traffic count on a road near a shopping mall. The mall abroad starts a huge promotional sale event for a week that attracts more shoppers, causing higher traffic counts. The time series is collected for 30 days with a daily sample rate.



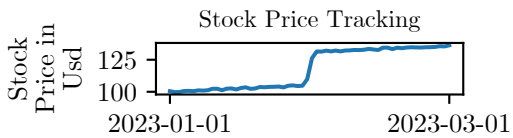
This scenario covers the time series data of streamflow rate in a large river, which may be affected by the external event of heavy rainfall in the catchment area. The streamflow rate is sampled daily for a span of 2 years, yielding around 730 observations.



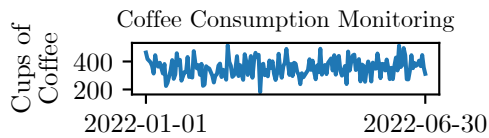
The scenario is a year-long tracking of daily solar energy harvested by a solar farm located in a temperate climate zone. An external event such as a solar flare could influence the reading by increasing solar intensity, thereby driving energy harvest numbers up significantly. The time series samples data at a rate of once per day for a full 365-day period.



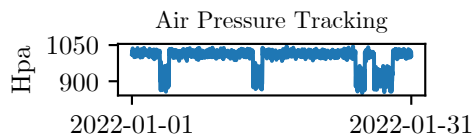
A finance company wants to track the number of outgoing customer service calls made every day for a month (30 days). The company launched a new product on the 15th day. This event could significantly increase the number of calls. The sample rate is daily, and each value represents the number of outgoing calls.



The scenario involves tracking stock prices for a certain tech company over the course of 60 days. The sample rate for the time series is one value per day, taken at the end of each trading day. A key external event could be the launch of a highly anticipated product, which is expected to generate high sales and positively impact the stock price.

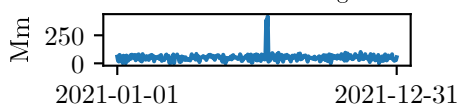


Monitor the daily coffee consumption rate at a tech startup office over six months (approximately 182 days). Each day's consumption is impacted by external events such as weather (more consumption on colder days) and deadline rush (more consumption during project delivery days).



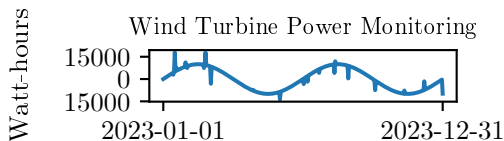
A meteorologist is monitoring air pressure on a remote island to help predict severe weather events. They collect a pressure reading every 30 mins for 1 month. Despite the general steady pressure, they expect a significant drop whenever there is storm activity in the area.

Rainfall Tracking



This scenario involves tracking the levels of rainfall in a certain geographical location throughout one year, where an extra tropical cyclone event increases the levels drastically. The data is sampled daily for 365 days, recording the quantity of rainfall in millimeters.

Wind Turbine Power Monitoring



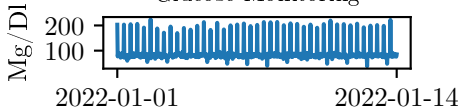
We are monitoring the power generation from a personal wind turbine over the course of a year. This is influenced by changes in wind speeds caused by seasonal weather patterns. The power generation is sampled every day at noon, resulting in 365 observations.

Cosmetic Sale Foot Traffic



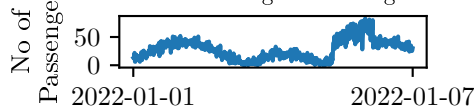
A department store is monitoring the foot traffic in their cosmetic section. An external event like a big sale on beauty products can increase the foot traffic causing a spike in the readings. Data is collected every 15 minutes for a week.

Glucose Monitoring



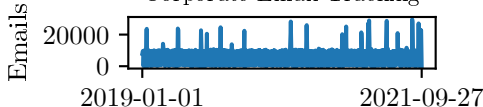
The scenario is the monitoring of blood glucose levels in a diabetic patient. External factors such as what type of food is consumed or the physical activity performed can significantly impact the reading. The time series is sampled every 30 minutes for a duration of two weeks.

Bus Passenger Tracking.



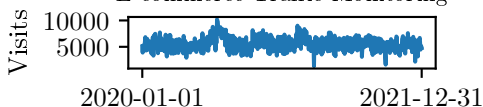
Imagine tracking the number of bus passengers on a suburban route in a moderately-sized city. The time series spans a week with a sample rate of every 15 minutes. A local event, such as a weekend concert can cause a noticeable uptake in the number of passengers.

Corporate Email Tracking



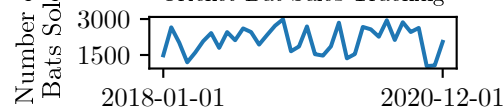
The scenario features measurements of the number of emails received by a corporate office daily. The sample rate is daily, and the duration spanned is about three years. External events such as corporate announcements, product launches, or holiday seasons might influence the influx of emails.

E-commerce Traffic Monitoring



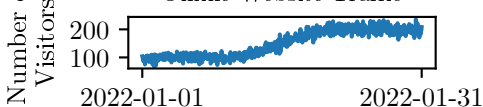
A time series is collected for an e-commerce platform, tracking the number of daily website visits over a span of two years. The data is influenced by marketing campaigns which typically cause a temporary spike of 20-30% in website visits happening approximately every six months.

Cricket Bat Sales Tracking



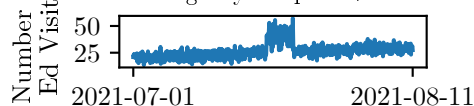
A sports equipment company tracks the monthly sales of cricket bats. The sales are influenced by a major cricket league that occurs annually over 45 days. During the league, the sales show a spike. The time series spans for 36 months, thus resulting in 36 observations.

Online Website Traffic



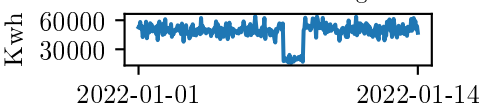
A company monitors the number of customers visiting its online website over time. The company launches a marketing campaign, which starts to influence the visits after some delay. The time series data is sampled every hour for a duration of 30 days.

Emergency Hospital Visits.



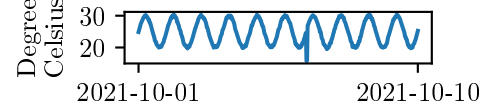
A hospital records the number of patients visiting the emergency department (ED) every hour over a span of 42 days. An external event, a large annual music festival, occurs during days 20-23, expectedly increasing the patient inflow.

Plant Power Usage



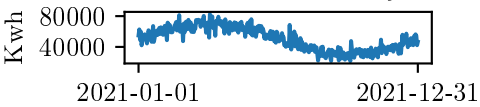
A manufacturing plant records the power usage of its machinery every hour for two weeks. A sudden maintenance shutdown occurs in the second week, causing a decline in power usage.

Greenhouse Temperature Measurements.

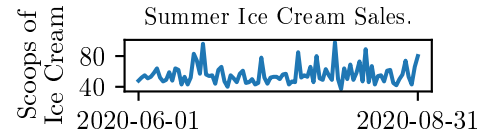


A scenario for a time series could be the temperature measurements in a greenhouse. The data might be influenced by external events such as a power outage, causing the temperature inside the greenhouse to drop. A temperature sensor inside the greenhouse gathers data every 30 minutes for 10 days.

Football and Electricity.

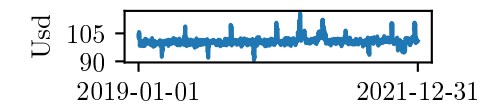


A regional electrical company measures the daily electricity consumption in kilowatt-hours for a medium-size city over the course of 365 days. The local football team has an excellent season, making it to the playoffs, which leads to an increase in electricity usage due to local celebrations and more usage of electronic devices to follow the games.



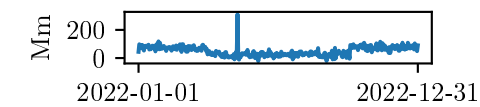
A local ice cream shop tracks sale of its best-selling flavour, vanilla, over the course of summer. The shop is open 7 days a week from June 1 to August 31. Number of scoops sold each day depend on the daily temperature, with sales significantly increasing over 30°C days.

Stock Price Time Series



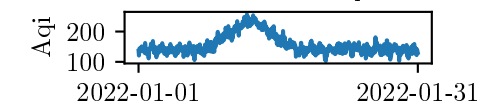
The time series records the daily closing prices of a particular stock in the market over a period of three years. The prices are influenced by external events including company earnings reports, global or regional economic indicators, and geopolitical events. The sample rate is daily, and the series spans a three-year period (approximately 1095 observations).

Rainfall Time Series



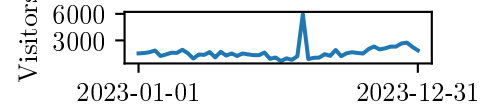
This hypothetical scenario involves measuring the amount of rainfall in a forest area over a year. External event includes a major thunderstorm striking the area, causing a significant increase in rainfall readings. Rainfall is measured daily, creating a time series of 365 observations.

Wildfire and Aqi



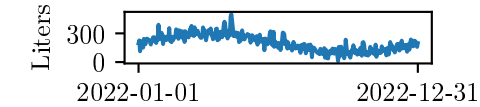
The air quality index (AQI) of a city, sampled every hour for a month. A significant external event could be a substantial wildfire miles away, which may gradually increase AQI over several days before eventually dissipating.

Park Visitors Count



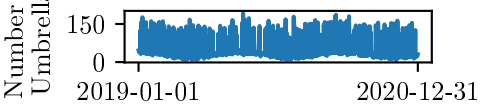
The scenario describes a year in a city park where visitor count is recorded every week. The external event is the city's annual music festival, which significantly increases the park's visitors that week. The time series lasts for 52 weeks.

Town's Water Consumption

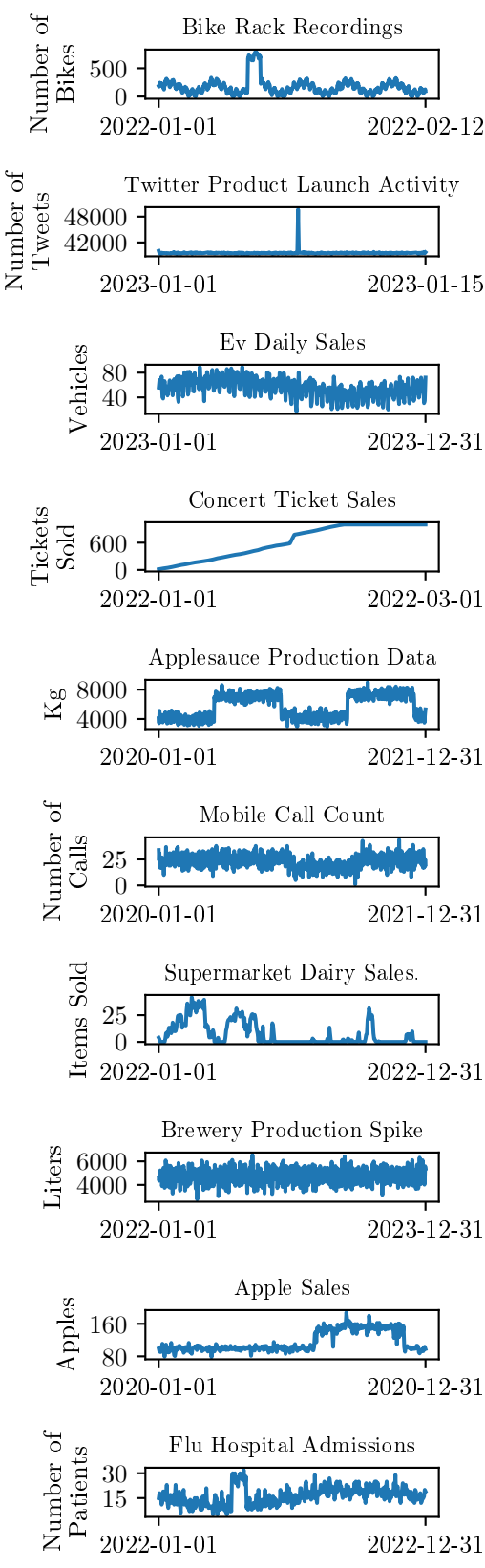


Measurements of a town's drinking water consumption over a 12-month period. The sample rate is once per day, yielding a time series of 365 observations. External events such as heatwaves could significantly increase water consumption.

Umbrella Sales



This scenario analyzes the sale of umbrellas in a local store sampled daily over two years. The time series indicates the correlation of sale numbers with external events like rainfall. When rain forecasts are high the store experiences higher umbrella sales.



A popular city park installs a smart bike rack which records the number of bikes parked every hour over a period of 6 weeks. The external event to consider here is a bike festival being held in the park on the 3rd weekend, which sees a noticeable increase in the number of bikes parked during that time.

This scenario involves the monitoring of social media activity for a well-known tech company, after an important product launch event. The product launch attracts a lot of interest on social media and the count of posts about the product on Twitter increases significantly. The time series represents the hourly tweet count over a span of 2 weeks (336 hours). The frequency of the series is measured hourly.

This scenario regards daily sales of electric vehicles (EVs) in a region closely linked to changes in gasoline prices. The higher the gasoline prices, the more likely people are to purchase electric cars trying to cut down their transportation costs. This time series covers data points for one whole year (365 days), sampled daily.

A concert promoter is tracking the sales of concert tickets for a highly anticipated music event. The time series captures ticket sales per day for the two months leading up to the event. There is a sudden increase in sales when a popular influencer posted about the event on social media, spiking interest among followers. The sample rate is daily, and the time series spans 60 days.

The scenario is an applesauce factory's daily production in kilograms for a span of 2 years. Apples' seasonality affects the production rate heavily. During the apples' harvest season (June-November), the rate is high, while it reduces significantly out of the season. The time series records the daily production, thus having 730 data points.

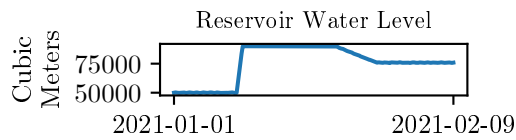
The scenario is the daily number of mobile phone calls made by an individual over a 2-year period. The external event is the individual losing their job which may affect their call rate. Sample rate is daily and duration is 2 years (730 days) in length.

A supermarket's dairy product sales rate, including milk, butter, cheese, and yogurt, is recorded daily for a year. The data could be influenced by mass advertising campaigns or major holidays, drastically increasing the purchasing rate.

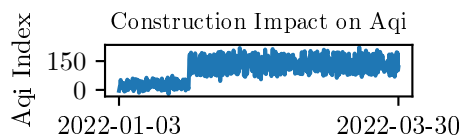
This time series captures the daily production data of a craft beer brewery over the span of two years. The external event is an annual beer festival that increases the brewery's production by 20% for two months prior to the event. The sample rate is daily, producing a 730-point time series with no missing values and none exceeding $1e6$.

A time series representing daily apple sales from a farmer's market stall over a period of a year. The external event is the harvest season which generally runs from August to November and would result in increased apple sales. The time series is sampled daily for a total of 365 samples.

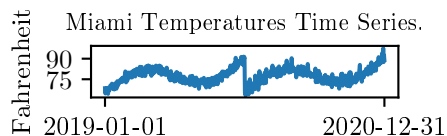
A hospital is monitoring the daily number of patients admitted due to a specific contagious disease like Influenza. The time series is the daily hospital admissions for a year. Flu season predictably happens during winter, hence the number of cases would spike during this time. The sample rate is daily, and the duration is one year.



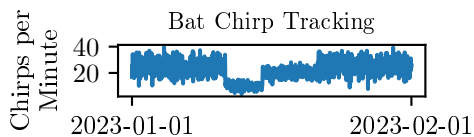
Consider a scenario measuring the water level in a reservoir. The water level depends on various factors such as rainfall, temperature and evaporation rates. An extreme weather event such as heavy rain or drought can cause significant shifts in the observations. The data is sampled every hour over a period of 40 days, giving 960 observations.



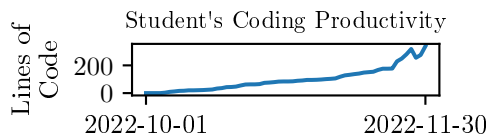
The time series records hourly air quality index (AQI) for a busy intersection in a city over a period of one month. A major construction project nearby significantly increases AQI levels after the first week. The sample rate is every hour.



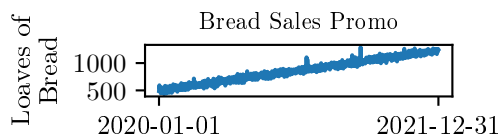
The time series presents the daily average temperature (in Fahrenheit) in Miami over a period of two years (approximately 730 observations). The city's subtropical climate suggests a cyclical pattern, with summer highs and winter lows. External event: an El Niño phase might increase the temperature abnormally during winter. The sample rate is 1 per day.



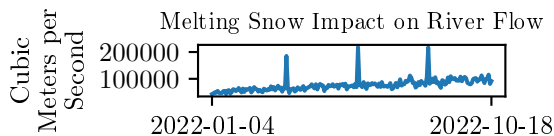
A wildlife conservation group monitors a certain bat species with a sonic detector in a woodland area. Bat chirp instances get detected by the device and recorded over time. A nearby outdoor music event might cause a drop in frequency as the bats get disturbed. The detector records chirps every minute over a month-long period.



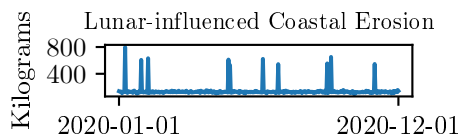
A computer science student is undertaking a personal project to prototype an AI model. The time series will represent his productivity level, measured by the number lines of code written every day. However, during a four-day Computer Science conference attended by the student, we should expect a temporary significant decrease in productivity. The time series will be sampled over a two month period at a daily rate (60 observations in total).



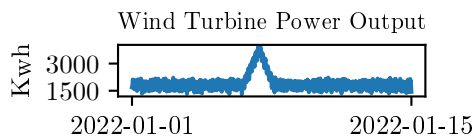
A supermarket chain is tracking the daily sales of a popular brand of bread for a period of two years. The external event is a promo period where bread has a 30% discount for a week. This might increase sales numbers drastically during the promo period. The sample rate is once per day, and the total duration is two years.



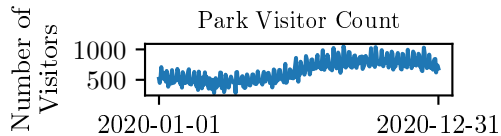
The scenario involves tracking the river water flow in a mountainous region from early spring to late summer. The time series would sample river flow rate once per day for 200 consecutive days. The violent snow melting due to warmer temperatures (external event) could largely influence the river's water flow rate, causing it to surge dramatically.



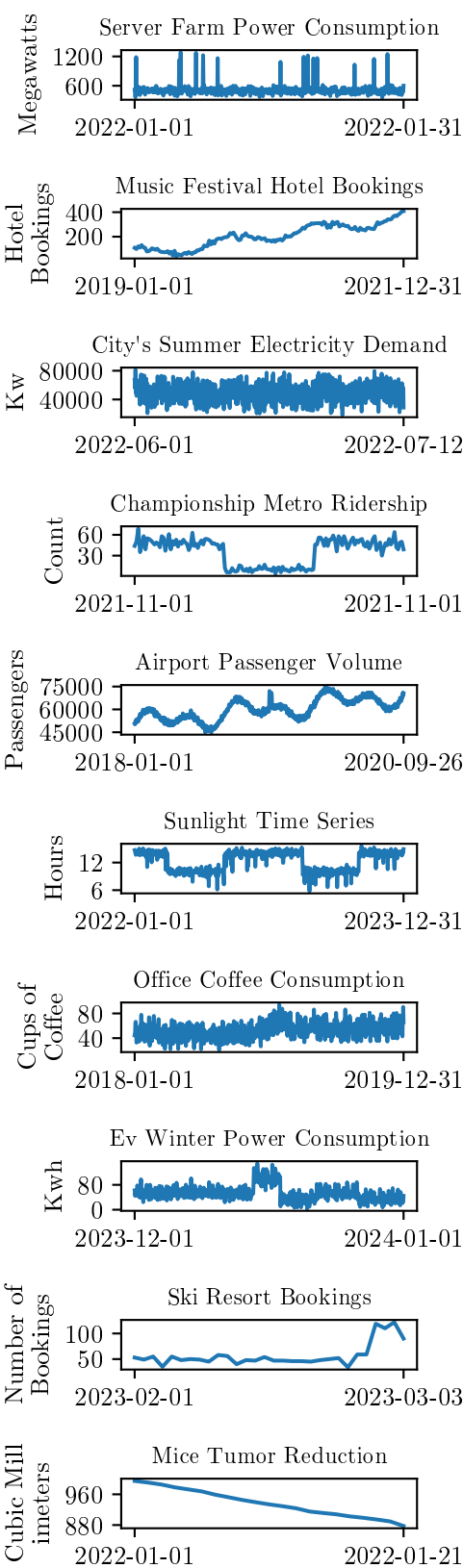
A geologist is studying the effects of lunar cycles on coastal erosion rates over a one year period. Using equipment to measure the amount of sediment displaced each day (in kilograms), the geologist records daily readings from a coastal location. This produces a time series of erosion rates, which may be influenced by the external event of changing lunar cycles. The sample rate of this time series is daily, and the duration is one year.



A sustainable energy company has deployed a wind turbine in a coastal area. The power output of the wind turbine is recorded every 15 minutes for two weeks. During this period, a significant storm event occurs, causing the wind speed to drastically increase, thus affecting the power output of the turbine.



We are observing the visitor count at a National Park over a period of a year at a daily rate. A major environmental clean-up initiative (external event) halfway through might increase the visitor count due to better park conditions.



The time series describes the power consumption of a server farm, measured in megawatts, every hour for a month. An external event, like a DoS attack, might cause a sudden spike in power consumption as servers work overtime to mitigate the attack.

A small town hosts a local music festival every summer. This event greatly impacts the local economy, especially its hotel bookings. A time series of weekly hotel bookings over three years is produced, where a clear pattern of much higher bookings during summer festival weeks can be seen. The sample rate of this time series is weekly, and its duration is three years (156 weeks).

Consider time series data for a city's electricity demand over summer season. Electricity demand changes over time due to fluctuations in temperature and events like heatwaves. The data is sampled hourly over a period of 42 days (1008 hours), starting from June 1.

A championship game hosted at a city-center stadium creates an increased traffic flow in the city. The public transportation department records the increase in metro ridership every 10 mins from the start to the end of the game for a total duration of 5 hours. This will be a series of 30 observations per hour for 5 hours giving a total of 150 observations.

Airport traffic pattern is strongly influenced by a range of factors, including the time of year and external events. This scenario involves monitoring passenger volume at a major airport, sampled every day for 3 years. The external event is the occurrence of a global sporting event (like the Olympics), which results in a significant spike in traffic.

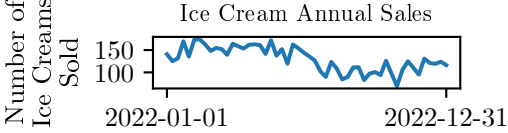
We imagine a scenario where we monitor daily sunlight duration in Sydney, Australia. We gather this data for two full calendar years. An external event like a series of bushfires might produce a noticeable dip in sunlight duration due to smoke cover. The sample rate is daily, and the time series covers two consecutive years making a total of 730 observations.

The scenario is the amount of coffee consumed in a corporate office. The sample rate would be each day over a period of two years. The external event would be the implementation of a new human resource policy that encourages the employees to take regular breaks leading to an increase in coffee consumption.

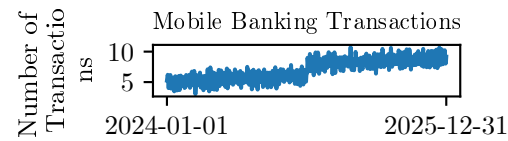
The scenario chosen involves power consumption of electric vehicles (EVs) during a winter holiday season. The sample rate of the time series is 1 hour over a month. The external event is a snowstorm which affects EVs by decreasing their efficiency thus resulting in higher consumption rates.

Consider a vacation resort located at a ski resort. It records the number of guests booked for the next 30 days every morning at 9 AM. An external event such as a heavy snowfall alert in the region could significantly increase the number of bookings due to an influx of tourists hoping to enjoy snow sports.

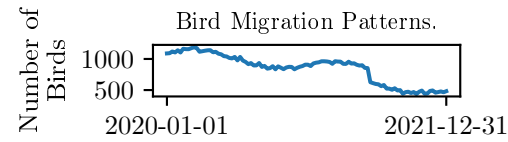
A pharmaceutical research company is testing a new cancer drug on laboratory mice, and the sample represents volume of the tumor over a period of 21 days at a daily sampling rate. The external event here is the application of a new drug dosage at the start of each week; this intervention is expected to decrease tumor volume over time.



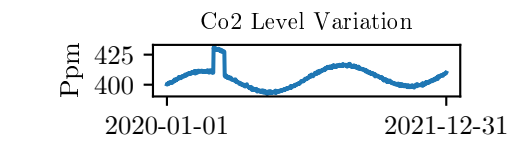
This scenario describes the change in sales of ice creams in a local shop throughout the year. The sales are expected to surge in the summer months due to the hot weather, with a sample rate of one reading per week for a duration of one year.



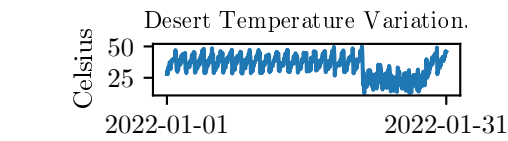
A bank is assessing the number of daily transactions carried out by its customers on a new mobile banking app in order to manage server load efficiently. The launch of a new advertising campaign aimed at digital natives is expected to incentivize usage. The measurements will be taken every day for two years (730 observations).



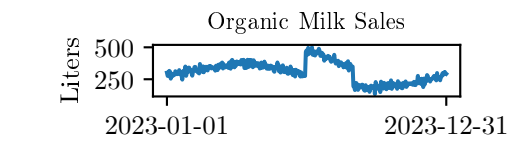
A time series analysis of endangered bird species X migration patterns over a 2 year period. An external event that might influence this time series could be deforestation. Sampled weekly, the number of species sighted would be expected to gradually decrease as their habitat is destroyed.



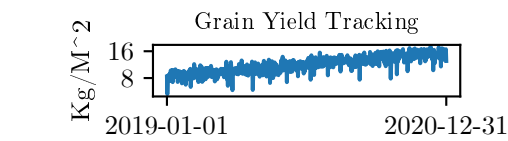
The scenario is about daily atmospheric carbon dioxide level in parts per million (ppm) collected by an observatory for around two years. An external event such as a volcanic eruption could potentially release a significant amount of CO2, influencing the readings of the time series. The sample rate is daily for approximately two years, resulting in a time series of around 730 observations.



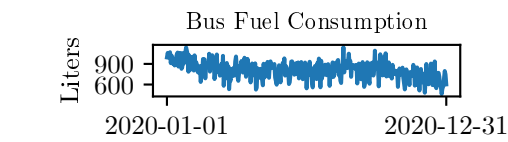
The scenario details the temperature variation in a desert over a duration of a month. The external event causing significant fluctuation is a rare week-long rainstorm. The frequency of measurement is hourly.



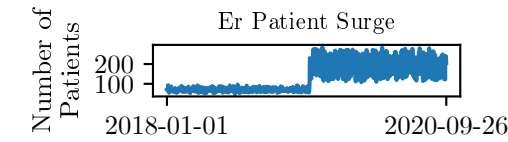
A grocery store wants to monitor the sales of organic milk every day for a year. A promotional event runs in the summer (July and August) when sales are usually lower, offering a 50% discount on the price of organic milk, which would potentially increase the sales during that period. The time series data is the daily sales of organic milk in the store for the year.



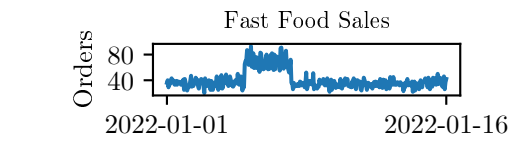
An agricultural research facility is tracking the productivity of a new grain variant in a controlled environment. External events such as carefully controlled rainfall and sunlight exposure are recorded every day for 2 years. The productivity is measured in kg per square meter.



The scenario involves tracking fuel consumption of a fleet of city buses over a span of a year. The external event is a city-wide renovation of roads and traffic light synchronization, aimed at improving traffic flow. This improvement in traffic flow might lead to less idling times for the buses, directly influencing fuel consumption rates. The fuel consumption is recorded every day for each bus, providing a daily sample rate for fuel usage. Due to the single variable (fuel consumption) and no missing values, this data forms a time series.

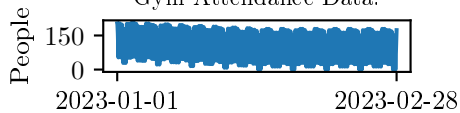


The scenario is a hospital ER register logging the number of incoming patients daily for a period of three years at a sample rate of once per day. A critical event such as a pandemic would significantly increase the numbers. It will be a single variable time series without missing values, and no value would exceed 1e6.



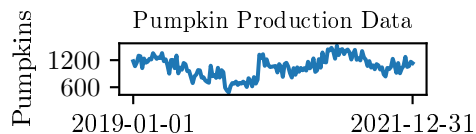
In a fast food restaurant, the number of orders for a new promotional item is recorded every hour for 15 days, resulting in a time series of 360 observations. An external event such as a viral social media post about the item could cause a surge in orders.

Gym Attendance Data.



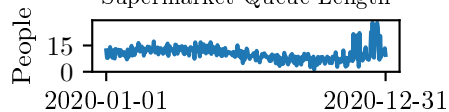
A large gym chain records the number of users in their gyms across the city every hour for two months. An external event such as "New Year" might spur an increase in gym attendance due to New Year's resolutions. Overall, we expect seasonal patterns with a higher frequency of gym usage after work hours and closer to the start of the week.

Pumpkin Production Data



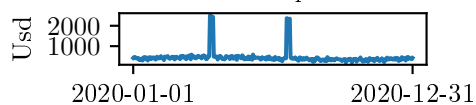
The scenario depicts a Pumpkin farm's weekly pumpkin production, influenced by weather conditions. The time series spans 3 years (156 weeks), sampled every week. An external event like a severe drought can cause a substantial dip in production.

Supermarket Queue Length



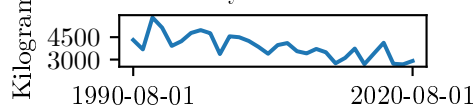
The scenario is a supermarket checkout, where you measure the average daily queue length. The queue length can be influenced by external events such as holiday sales events. The sample rate of time series is daily, taken for a year (365 observations).

Cheese Shop Sales



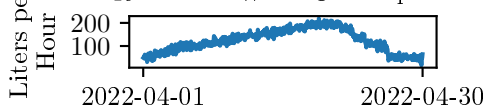
Consider a local cheese shop, where sales depend on daily customer foot traffic which fluctuates throughout the week. An external event such as a regional cheese festival might drastically increase sales for the duration of the event. This time series is sampled daily over a year, resulting in 365 observations.

Honey Production.



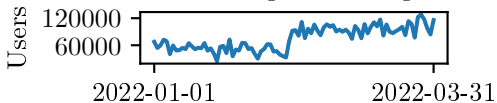
Yearly wild honey production in a hundred bee farms in rural France over 30 years. During the examined period, there was a widespread use of certain pesticides, which allegedly affected the bee population and hence honey production. Honey was harvested once every year in August, right after the flowering season.

Residential Water Consumption



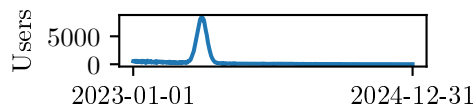
A time series recording the hourly water consumption in a residential building over the course of one month. External events such as a festive holiday may lead to an increase in water consumption due to an increased number of residents in the building. The sample rate is hourly and the duration is one month.

App Usage Monitoring



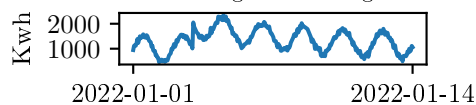
A company is monitoring the daily usage of their application by the number of users logged in. The data spans from January 1 to March 31, 2022 (90 days). On the 45th day, they launched a marketing campaign which resulted in an increase in app usage. The sample rate is daily.

Game Dau Time Series



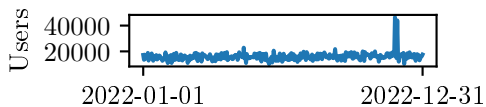
A small independent game developer releases a new mobile game in the app store. The time series represents the daily active users (DAU) of the game for the first two years after release (730 observations). A large influencer tweets about the game during the 6th month, causing a significant spike in the DAU numbers. The sample rate is daily, collected for 2 years.

Gaming Power Surge



A power company has observed a significant rise in electricity usage due to the launch of a new high-profile video game. The time series is sampled every hour over a period of 2 weeks, recording the power usage of the grid, leading to 336 observations.

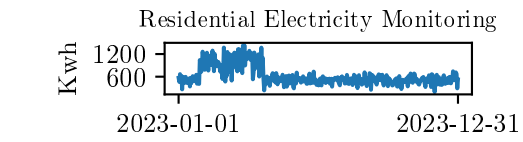
E-commerce User Traffic



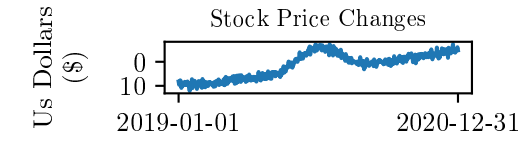
An e-commerce website tracks the number of daily users that visit their site. The peak shopping period, Black Friday and Cyber Monday, usually causes a surge in user traffic, particularly in the week of these events. The site collects a year's worth of daily sampled data.



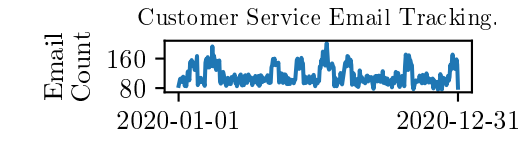
A community fitness challenge leads to an increased usage of a local public park over a span of 30 days. The park's pedestrian counter captures the hourly foot traffic that could be influenced by the challenge. However, external event such as adverse weather conditions could potentially decrease the park visits.



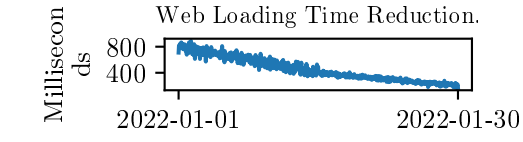
The scenario involves tracking the electricity usage of a residential household over a one-year period, collected every day at midnight. Winter months, roughly between late November and early March, often see high consumption due to the use of heating systems. This external event may cause a surge in the readings. A one-year duration is covered, making the total sample size 365.



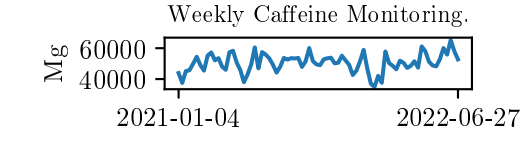
This is a time series of a start-up company's stock price over the course of two years. The business has been steadily growing, but a major scandal involving the CEO caused a sharp decrease in the share price. The stock is monitored daily during trading days (252 days/year).



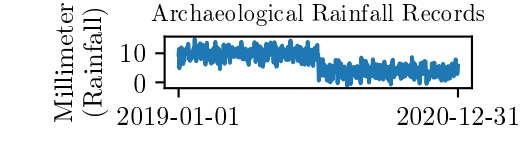
This scenario involves tracking the daily number of emails received by a company's customer service department over a span of one year. The sample rate would be one per day. The external event could be a product launch event causing a rise in customer inquiries and hence more customer service emails.



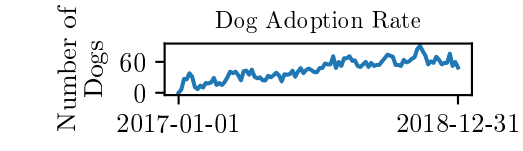
The scenario is the testing of a new website's loading time measured in milliseconds. Over a period of 30 days, developers introduce improvements to reduce loading time and measure every hour. The major external event is the implementation of a new caching strategy on the 15th day, which significantly reduces the loading time.



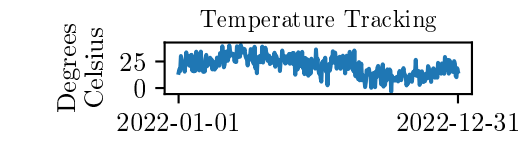
A company tracks its weekly caffeine consumption (in mg) of its employees over 18 months (78 weeks). Every January, due to New Year resolutions, there's a noticeable drop in caffeine intake. The data is collected every Monday, providing a timestamp for each week's data.



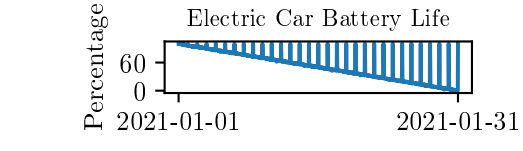
An archaeologist is studying the rainfall over an ancient city. She records daily precipitation levels (in millimeters) for two years. An exceptional drought occurs in the second year. That external event significantly reduces the average precipitation value.



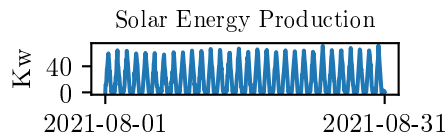
This scenario pertains to an animal shelter's dog adoption rate. The external event includes the implementation of several promotional campaigns. Each campaign is usually impactful for about four weeks. Our shelter records the number of dogs adopted each week over a two-year span.



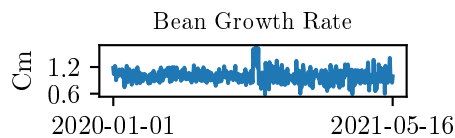
A meteorology station tracking the average daily temperature in a city over a one-year period could generate a time series. A heatwave, an external event, might cause the temperature readings to rise suddenly. The sample rate for this time series would be a daily reading over 365 days.



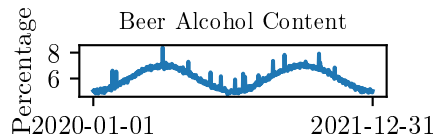
The dataset represents the battery life of electric cars at 30-minute intervals over 30 days, measured in percentage. During winter, a rapid drop in temperatures might cause the battery to drain faster, thus affecting the readings. This phenomenon is because cold weather causes batteries to work harder and lose charge quicker than in warm weather.



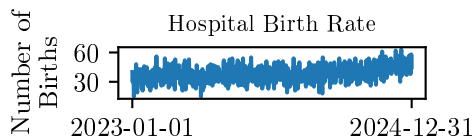
A scenario of an energy company monitoring solar energy production. The data is captured by a sensor every hour for 30 days. The external event is a series of cloudy days affecting the energy output.



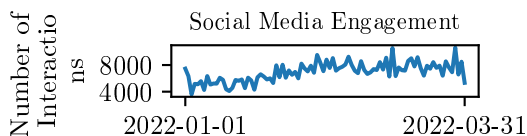
A greenhouse facility measures the growth of a unique variety of bean plant under controlled environment conditions. The growth of the plants, measured in cm, is noted once every day for a total duration of 500 days. An external event occurs around day 250 with a sudden increase in CO2 concentration due to a faulty control system, which ceases after day 260. This influences the bean plant growth rate.



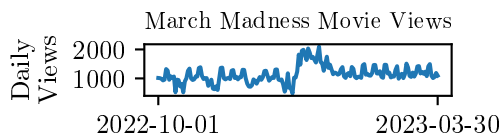
A small-scale brewery measures the alcohol content in their main beer product daily at 8 PM, over the course of 2 years. External events such as seasonal temperature fluctuations and the occasional use of a different yeast strain might influence the measurements.



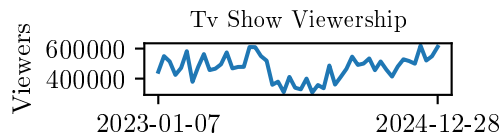
In a city hospital, a study is conducted to measure daily birth rate for a duration of 2 years. Unexpectedly, a severe heatwave hits the city in the second year which might result in a higher birth rate due to increased indoor activities. The time series is sampled every day for 2 years making it 730 observations.



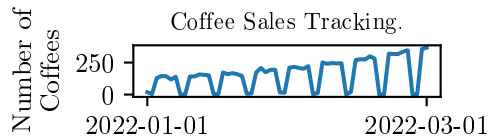
This scenario describes the fluctuations observed in a company's daily social media engagement (likes, comments, shares) over a three-month period. Influential external events, such as launch of a new product, might spike the engagement rate. The engagement rate is sampled at a daily rate.



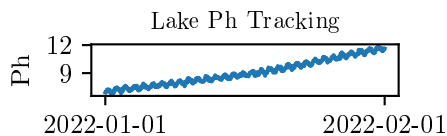
A university research department is conducting a study to understand the impact of the NCAA March Madness basketball tournament on the streaming numbers of basketball related movies. The time series tracks the daily views of basketball related movies on the university's online streaming platform over a 6 month period (approximately 180 days) leading up to and immediately after the tournament. The tournament itself lasts for 3 weeks and could cause a surge in streaming numbers.



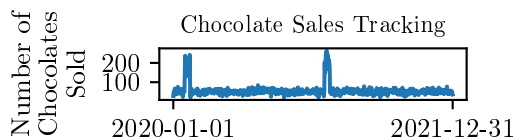
The scenario is about monitoring the number of viewers of a popular, weekly TV show over the course of 2 seasons (50 episodes). Due to the show's controversial content, there is an external event where a large group decides to boycott the show from episode 21 to 30, possibly causing a dip in the viewership.



A café has initiated a new breakfast offer to attract more customers. The time series aims to monitor the daily number of coffees sold over a two month period, following the launch of the promo. The sample rate is daily, with each observation reflecting the total coffees sold in a day. The effects of the new offer might influence changes in the daily coffee sales data.



This scenario involves tracking hourly water quality measure (specifically water pH) in a municipal lake for a month. An unexpected event, such as a chemical spill from a nearby factory, might affect the pH readings. There would be 744 observations in this time series.



A boutique local chocolate shop has been tracking the daily number of artisan chocolates sold over the past two years. During the Valentine's Day period, a significant increase in sales is observed due to the increased demand for chocolates as gifts. The sample rate of this time series is one sample per day for a duration of two years, resulting in 730 observations.