# Spatial prediction method of solar container field in my country

(1) Solar thermal utilization industry The heat utilization industry is currently mainly used in eight fields in my country, namely: Industrial development of solar low-temperature hot water integration technology ...

Statistical prediction methods, such as time-series analysis, regression analysis, grey theory, fuzzy theory, and spatio-temporal correlation analysis, explore historical data to establish data ...

Zhe Jiang Abstract--With the advancement of GPS and remote sensing technologies, large amounts of geospatial and spatiotemporal data are being collected from various domains, driving the need for ...

To anticipate the future impact of cloud displacements on the energy generated by solar facilities, conventional modeling methods rely on numerical weather prediction or physical models, ...

The accurate spatial-temporal prediction of photovoltaic (PV) power generation helps the power system dispatching department to make reasonable dispatching plans. In this paper, a ...

Consequently, spatial features embedded in the gridded NWP forecasts cannot be verified. This study presents the spatial verification of solar irradiance forecasts using the ...

Ensemble learning synthesizes the advantages of different models and has been widely applied in the field of spatial prediction. However, the nonlinear constraints of spatial heterogeneity on the m...

ABSTRACT Ensemble learning synthesizes the advantages of different models and has been widely applied in the field of spatial prediction. However, the nonlinear constraints of spatial heterogeneity on ...

Therefore, the proposed method for predicting wind pressure spatiotemporal fields on long-span flexible photovoltaic structures offers significant potential for optimizing the spatial ...

In wind prediction field, Song et al. [260] proposed a weight-optimization-based output ensemble method; Jiang and Liu [261] proposed a nonlinear weight-based output ensemble method.

Abstract Accurate prediction of heavy metals (HMs) spatial distribution in mining areas is crucial for pollution management. However, predicting the spatial distribution of HMs remains a ...

Current methods for predicting rooftop photovoltaic (PV) potential face significant shortcomings, as geospatial approaches struggle with precision at urban scales, historical time-series ...

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ABSTRACT Spatial prediction software is a valuable tool for predicting the spatial distribution of geographic variables and have a wide applicability with numerous non-expert users. ...

Abstract To optimize the utilization of photovoltaic power sources, high-precision short-term solar irradiance predictions are critically needed. This study presents a novel short-term solar ...

To address this issue, this paper uses a national inventory dataset of large-scale solar photovoltaics installations (the land coverage area >= 1 hm 2) to investigate the spatial location ...

High-spatial-resolution (HSR) solar irradiance forecast data is important for regional distributed photovoltaic (PV) power forecasting. Distributed PV sites are widely geographically distributed and ...

This study introduces a novel method for predicting solar radiation by focusing on the sun"s position and cloud conditions in the sky. The proposed approach utilizes sun position feature maps and spatial ...

A novel method for real-time solar generation forecast using weather data, while exploiting both spatial and temporal structural dependencies is proposed. The network observed over time is projected to a ...

Taking the spatiotemporal prediction of distributed photovoltaic installed capacity of a power supply unit in a planned new area of a city in eastern China as an example, the method ...

The model can minimize the training time of model without significantly reducing prediction accuracy. Furthermore, a spatiotemporal probabilistic prediction model that combines ...

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