

# The Journal of Grey System

## Contents

### **Air Quality Evaluation Based on Grey Clustering Method: A Case Study of 74 Cities in China**

Aqin Hu, Naiming Xie, Min Zheng 1

### **Multi-attribute Grey Target Decision-making Based on “Kernel” and Double Degree of Greyness**

Sandang Guo, Ye Li, Fenyi Dong, Bingjun Li, Yingjie Yang 27

### **Modeling and Application of Grey Model GM (2, 1) Based on Linear Difference Equation**

Maolin Cheng, Guojun Shi 37

### **The Modified Model of Soil Organic Matter Content Grey Relation Estimation Pattern Based on Hyper-spectral Data**

Chuanhong Miao, Xican Li, Jiehui Lu,  
Haoran Zhai, Hao Zhong, Yu Zhou 51

### **A Function Transformation Criterion to Reduce Stepwise Ratio Variance**

Jun Zhang, Zhifen Song, Zhenchao Zhang,  
Shengyun Ma, Yuanyuan Liu 65

### **Imputation Method of Random Arbitrary Missing Data Based on Improved Close Degree of Grey Incidence**

Guodong Liu, Jianjun Zhu, Xiaodi Liu 74

### **Fractional Order Reverse Accumulative Non-Homogeneous Discrete Grey Forecasting Model and Its Application**

Pumei Gao, Jun Zhan, Jiefang Liu 98

### **Gaussian Barebones Differential Evolution with Grey-based Arithmetic Recombination Strategy**

Ming-Feng Yeh, Hung-Ching Lu 110

**Decision making model of multi-attribute interval grey number  
based on the distance of general consistency**

**Shasha Xi, Yong Wei**

**121**

**Multivariate Grey Prediction Models for Pattern Classification  
Irrespective of Time Series**

**Wen-Bao Wang, Yi-Chung Hu**

**135**

**Author Guidelines**