

## **Grey Neural Network and Input-Output Combined Forecasting Model and Its Application in Sub-sector Energy Related Carbon Dioxide Emissions Estimation in China**

Topic: Neural networks, critical supply paths and resources

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In this study, grey Neural Network and Input-Output Combined Forecasting Model (GNF-IO) was built to forecast coal, crude oil and natural gas that consumed by 42 industries in China in 2011. Applied the model, carbon dioxide emissions related with coal, crude oil and natural gas consumed by 42 industries in China in 2011 were estimated. According to the analysis and estimation results, the sub-sectors energy conservation policy recommendations were presented.