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## **RESILIENCE OF TOURISM INDUSTRY CHAIN-SUPPLY CHAIN SYSTEM FOR LOW-CARBON GREEN TRANSITION: SPATIO-TEMPORAL EVOLUTION ANALYSIS AT PROVINCIAL SCALE**

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### **Abstract**

This study constructs a four-dimensional evaluation system (resistance, recovery, reconstruction, renewal) to assess China's tourism industrial chain and supply chain resilience, employing entropy-weighted TOPSIS, kernel density estimation, and spatial autocorrelation analysis for 2012-2021 data. Key findings include: (1) resilience demonstrates an overall upward trajectory with regional hierarchy of Eastern > Central > Western > Northeastern regions; (2) while national and regional resilience levels increase, absolute disparities expand with significant inter-regional variations; (3) positive spatial correlation exists with Moran's index exhibiting a "W"-shaped evolution pattern of "dispersion-agglomeration-redispersion-reagglomeration." From an environmental economics perspective, regional resilience disparities reflect uneven environmental resource allocation, with the Eastern region's superior resilience enabling green innovation and low-carbon transition, while other regions require enhanced policy support. The study recommends differentiated regional policies, cross-regional cooperation mechanisms, and integrated environmental-economic evaluation systems, suggesting enterprises adopt region-specific environmental strategies and incorporate sustainability factors across all resilience dimensions to achieve environmental sustainability and economic stability in China's tourism development.

*Key words:* industrial chain and supply chain, low carbon environment, resilience, spatio-temporal evolution, tourism

*Received: May, 2025; Revised final: September, 2025; Accepted: October, 2025*

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