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Intelligent Interpretation for Geological Disasters

From Space-Air-Ground Integration Perspective

This book comprehensively utilizes the new generation of artificial intelligence and remote sensing science and technology to systematically carry out researches on high-precision recognition, monitoring, analysis, and assessment of geological disasters by using different technologies of “ground, airspace, and space-based systems” and different scales of “target-semantic-region”. The main contents include:

- 1) Intelligent interpretation theory and methods of geological disasters,
- 2) Intelligent analysis of landslide based on long-term ground monitoring data,
- 3) Deep learning-based remote sensing detection of landslide,
- 4) Intelligent analysis of landslide evolution based on optical satellite remote sensing data,
- 5) Intelligent assessment methods of landslide susceptibility,
- 6) Intelligent recognition of ground figure based on airspace-based remote sensing data,
- 7) Intelligent monitoring of land subsidence in mining areas based on InSAR technology.

The book is of interest to graduate student, scientific, and technological personnel who work in the area of geological disasters, natural hazards, remote sensing, and artificial intelligence.

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