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地震预报和某些新的理论探索

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Earthquake Forecast and New Theoretical Research

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摘要 首先回顾了地震预报的某些理论，特别是笔者提出的地震震级-周期公式及其定量预测，然后讨论了非线性地震学及Lorenz模型和混沌、分形等,Lorenz模型可以由协同学的基本方程得到，最后论述了可以从各个不同方面探索地震的周期性，并讨论了相关的某些理论.广泛结合地震预报的各种方法将可以大大提高精确度，特别是短临预报能力.

关键词: 地震 预报 非线性 周期性

Abstract: Some theories of earthquake forecast are reviewed,in which the magnitude-period formula of earthquake proposed by the author and its quantitative forecast are especially expounded.Next,the nonlinear seismology,the Lorenz model,chaos and fractal,etc.,are discussed.Moreover,the Lorenz model may be obtained from the basic equations of synergetics.Finally,the periodicity of earthquake may be proved from various different aspects,and some corresponding theories are researched.The precision of earthquake forecast,in particular,the short-time forecast power,will be improved if various methods of forecast are widely combined.

Key words: earthquake forecast nonlinearity periodicity

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