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I. Introduction: Motivation and Historical Overview II. IVR: Analogy to Anderson Localization; A. Introducing the IVR State Space; B. Quantum Ergodicity Threshold; 1. Ensemble of Hamiltonians: Probabilistic Approach to the Transition; III. Scaling Theory of IVR; A. State Space Predictions; IV. Important Questions; V. Classical-Quantum Correspondence and IVR; A. State Space-Phase Space Correspondence; B. Geometry of the Resonance Network: Arnold Web; C. Computing the Arnold Web; 1. Variational Approaches; 2. Time-Frequency Analysis; 3. "Coarse-Grained" Frequency Ratio Space
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Sommario/riassunto

Detailed reviews of new and emerging topics in chemical physics presented by leading experts The Advances in Chemical Physics series is dedicated to reviewing new and emerging topics as well as the latest developments in traditional areas of study in the field of chemical physics. Each volume features detailed comprehensive analyses coupled with individual points of view that integrate the many disciplines of science that are needed for a full understanding of chemical physics. Volume 153 of Advances in Chemical Physics features six expertly written