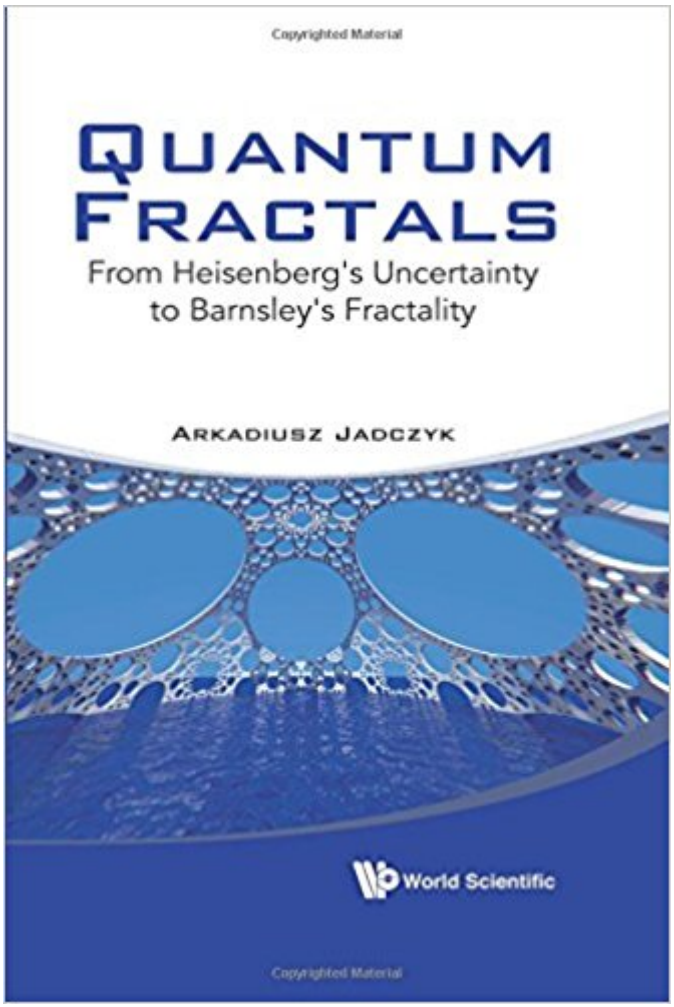
# Quantum Fractals : From Heisenberg's Uncertainty To Barnsley's Fractality



## Synopsis

Starting with numerical algorithms resulting in new kinds of amazing fractal patterns on the sphere, this book describes the theory underlying these phenomena and indicates possible future applications. The book also explores the following questions: What are fractals? How do fractal patterns emerge from quantum observations and relativistic light aberration effects? What are the open problems with iterated function systems based on Mobius transformations? Can quantum fractals be experimentally detected? What are quantum jumps? Is quantum theory complete and/or universal? Is the standard interpretation of Heisenberg's uncertainty relations accurate? What is Event Enhanced Quantum Theory and how does it differs from spontaneous localization theories? What are the possible applications of quantum fractals? Readership: Advanced undergraduate students and professionals in quantum chaos, as well as philosophers of science.

## Book Information

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What are the possible applications of quantum fractals?



Quantum Fractals : From Heisenberg's Uncertainty to Barnsley's Fractality Beyond Uncertainty: Heisenberg, Quantum Physics, and the Bomb Uncertainty: Einstein, Heisenberg, Bohr, and the Struggle for the Soul of Science Fractals, Wavelets, and their Applications: Contributions from the International Conference and Workshop on Fractals and Wavelets (Springer Proceedings in Mathematics & Statistics) Fractals in Physics: Proceedings of the Sixth Trieste International Symposium on Fractals in Physics, Ictp, Trieste, Italy, July 9-12, 1985 ISO/IEC Guide 98-3:2008, Uncertainty of measurement - Part 3: Guide to the expression of uncertainty in measurement (GUM:1995) Advanced Molecular Quantum Mechanics: An Introduction to Relativistic Quantum Mechanics and the Quantum Theory of Radiation (Studies in Chemical Physics) Heisenberg (Modern Plays) The Eyes of Heisenberg Quantum Ontology: A Guide to the Metaphysics of Quantum Mechanics Quantum Nanoelectronics: An introduction to electronic nanotechnology and quantum computing Introduction to Topological Quantum Matter & Quantum Computation Quantum Mechanics: Re-engineering Your Life With Quantum Mechanics & Affirmations Quantum Runes: How to Create Your Perfect Reality Using Quantum Physics and Teutonic Rune Magic (Creating Magick with The Universal Laws of Attraction Book 1) Delirious, A Quantum Novel (Quantum Series Book 6) Quantum Thermodynamics: Emergence of Thermodynamic Behavior Within Composite Quantum Systems (Lecture Notes in Physics) Covariant Loop Quantum Gravity: An Elementary Introduction to Quantum Gravity and Spinfoam Theory (Cambridge Monographs on Mathematical Physics) The Quantum Mechanics Solver: How to Apply Quantum Theory to Modern Physics Quantum Space (Quantum Series Book 1) Quantum Incident (Quantum Series Book 0)