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Sommario/riassunto	"GeoEnergy encompasses the range of energy technologies and sources that interact with the geological subsurface. Fossil fuel availability studies have historically lacked concise modeling, tending instead toward heuristics and overly-complex processes. Mathematical GeoEnergy: Oil Discovery, Depletion and Renewal details leading-edge research based on a mathematically-oriented approach to geoenergy analysis. Volume highlights include: Applies a formal mathematical framework to oil discovery, depletion, and analysis; employs first-order applied physics modeling, decreasing computational resource requirements; illustrates model interpolation and extrapolation to fill out missing or indeterminate data; covers both stochastic and deterministic mathematical processes for historical analysis and prediction; emphasizes the importance of up-to-date data, accessed through the companion website; demonstrates the advantages of mathematical modeling over conventional heuristic and empirical approaches; and accurately analyzes the past and predicts the future of geoenergy depletion and renewal using models derived from observed production data"--Provided by publisher