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## **GROWTH STRATA: AN OVERVIEW OF KINEMATIC CYCLOSTRATIGRAPHY**

Outcrop and subsurface investigation of growth strata from multiple contractional, extensional and halokinetic structural settings suggest that syndepositional deformation also develops systematic, local unconformity-bounded, stratigraphic intervals proximal to active structures in many basins. These *kinematic cyclothems* are composed of *kinematic series* defined and identified by their stratal termination patterns, which are observable in reflection seismic data and many outcrops. Independent evidence of the episodic nature of fault displacement, halokinesis and fold growth, combined with the repetitive patterns of these kinematic cycles and the association of distinct facies architectures with different kinematic series, supports existing interpretations that associate different stratal termination patterns with different rates of relative uplift. The correlation of these termination-pattern-based kinematic series with systematic facies distributions and/or geochronologic data could improve the efficiency of hydrocarbon recovery and resolution of kinematic histories constructed from growth strata. Correlation of these proximal kinematic cyclothems and series with conformable down-dip stratigraphic features could also shed light on poorly defined sequences in tectonically controlled basins, wherein structural deformation can have the dominant influence over sediment supply and accommodation.