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Kýklos Dimensional Geometry: Entity Specific Core Measurement System

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Abstract : A novel method referred to asKýklos(Ky) dimensional geometry is proposed as an entity specific core geometric dimensional measurement system. Ky geometric measures can constructscaled multi-dimensionalmodels using regular and irregular sets in IRn. This entity specific-derived geometric measurement system shares similar fractal methods in which a 'fractal transformation operator' is applied to a set S to produce a union of N copies. The Kýklos' inputs use 1D geometry as a core measure. One-dimensional inputs include the radius interval of a circle/sphere or the semiminor/semimajor axes intervals of an ellipse or spheroid. These geometric inputs have finite values that can be measured by SI distance units. The outputs for each interval are divided and subdivided 1D subcomponents with a union equal to the interval geometry/length. Setting a limit of subdivision iterations creates a finite value for each 1Dsubcomponent. The uniqueness of this method is captured by allowing the simplest 1D inputs to define entity specific subclass geometric core measurements that can also be used to derive length measures. Current methodologies for celestial based measurement of time, as defined within SI units, fits within this methodology, thus combining spatial and temporal features into geometric core measures. The novel Ky method discussed here offers geometric measures to construct scaled multi-dimensional structures, even models. Ky classes proposed for consideration include celestial even subatomic. The application of this offers incredible possibilities, for example, geometric architecture that can represent scaled celestial models that incorporates planets (spheroids) and celestial motion (elliptical orbits).

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