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### *The Living Spiral*

#### *A Dimensionless Biological Constant Gives a New Perspective to Physics*

**Abstract.** *In biological development, the spiral is an intrinsic generative design that enables adaptation. This spiral generates itself at a constant ratio. This ratio, as a biological dimensionless constant, is a component of the universal, dimensional constants of physics. This reflects a universal, spirally regenerative correspondence between adaptive biological designs and those physical designs or phenomena on all scales and orders in nature, including that of the atom and quantum. Thus, the biological design of a pinecone can give insight into the atom and quantum. The generation of the quantum and diverse forces arises out of the intersections of spiral continuities of undifferentiated force within a plenum, and these intersections may represent a type of phyllotaxis. The biological dimensionless constant defines such a generation and points to a universal template which projects itself by dynamical imprinting, on the plenum, through all scales/orders of nature. This projection necessitates that all natural designs are adaptive through a dynamic process of spiral complementation or completion and would suggest an implicit determinism within all scales of nature.*