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**Joseph D. Clinton\***, 334 MacKenzie Drive, West Chester, PA 19380-3816. *R. Buckminster Fuller's Synergetic 'Jitterbug:' its fascination and some challenges.*

As a system, beginning with the Tetrahedron and applying the motions of the 'Jitterbug,' one can demonstrate a hierarchy of polyhedral forms that emerge. Some fascinating questions begin to surface as one studies the growth of the developing forms in the hierarchy and their relationship to other ideas presented in Fuller's "Synergetics." Several challenging problems will be discussed relating to the hierarchical limits, the intersection of cylindrical symmetry axes, the negative Poisson's ratio, the tensegrity growth characteristics, and where the forms may be placed in the 'Isotropic Vector Matrix.'" (Received November 28, 2007)