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Chantel C Blackburn* (chantel@andrews.edu). *Mysterious 19 and the Hausdorff Metric Geometry.*

The Hausdorff metric gives a way to measure the distance between non-empty compact subsets of n -dimensional Euclidean space. A configuration defines two sets (infinite or finite) for which it is possible to have a finite number of elements at each location between the sets. One of the intriguing properties of the geometry imposed by this metric is that no finite configuration exists with 19 elements at each location between two sets. This talk addresses whether any such infinite configuration exists. (Received February 08, 2006)