## 1077-90-2299 Andrew D Hedman\* (adhedman@eagle.fgcu.edu) and Thomas W Hair. Spatial dispersion of interstellar civilizations: a site percolation model in three dimensions.

A site percolation model is presented that simulates the dispersion of an emergent civilization into a uniform distribution of stellar systems. This process is modeled as a three-dimensional network of vertices within which an algorithm is run defining both the number of daughter colonies the original seed vertex and all subsequent connected vertices may have and the probability of a connection between any two vertices. This algorithm is then run over a wide set of these parameters and for iterations that represent up to 250 million years within the model's assumptions. (Received September 22, 2011)