1125-11-2172   **Darren B Glass*** (`dglass@gettysburg.edu`), 300 N Washington Street, Gettysburg, PA 17325.
Counting Arithmetical Structures on Graphs.

For any finite graph, Lorenzini defined the notion of an arithmetical structure on the graph inspired by some notions in algebraic geometry. One formulation of this definition is a labelling of the vertices of a graph with positive integers so that the label of each vertex is a divisor of the sum of the labels of all adjacent vertices. These structures are of interest for a number of reasons, but in this talk, I will emphasize the number theoretic questions they lead to and discuss recent work with various co-authors counting the number of structures on graphs in various families. (Received September 19, 2016)