

1125-06-2738

Christina Eubanks Turner, Loyola Marymount University, and **Aihua Li***,
lia@mail.montclair.edu. *Graphical Properties of the Partially Ordered Set Derived from $\text{Spec}(\mathbb{Z}[x])$*
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Consider $\text{GZ} = \text{Spec}(\mathbb{Z}[x]) \setminus \{0\}$ of nonzero prime ideals of $\mathbb{Z}[x]$ as a partially ordered set by inclusion. We further view GZ as an infinite bipartite graph with the prime ideals as the vertices and the inclusion relations as the edges. In this paper, we investigate fundamental graph theoretic properties of GZ . In particular, we describe the diameter, circumference, girth, radius, eccentricity, global and local connectivity, and cliques of GZ . The complement of GZ is investigated as well. (Received September 20, 2016)