

1135-55-2856

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A **discrete Morse function** f on a connected graph G is a function $f : G \rightarrow \mathbb{R}$ such that for every vertex $v \in G$, $|\{e : f(v) \geq f(e) \text{ for some edge } e \text{ incident to } v\}| \leq 1$, and for every edge e , $|\{v : f(v) \geq f(e) \text{ for some vertex } v \text{ incident to } e\}| \leq 1$. It turns out that can use number-theoretic functions to assign values to the vertices and edges of a graph in such a way that the assignment is a discrete Morse function. This talk will explore some of the work done by students in exploring the relationship between these number theory functions and their emergent topological properties, and suggest new avenues to explore. (Received September 26, 2017)