

1112-62-569

Vishesh Karwa* (vishesh.karwa@gmail.com), 165 Pleasant Street, Cambridge, MA 02139, and
Michael J Pelsmajer, Sonja Petrovic, Despina Stasi and Dane Wilburne. *What is the core distribution of a graph telling us?*

The k -core of a graph is its largest subgraph such that all nodes have degree at least k in the subgraph. The shell index of a node, the largest core it belongs to, can be used a measure of importance of a node. We propose to model networks by their shell structures and discuss network models based on the core decomposition of a graph. (Received August 11, 2015)