

1057-13-400

Bonnie Smith* (bsmith17@nd.edu), 255 Hurley Hall, Notre Dame, IN 46616. *The Core of a Strongly Stable Ideal*. Preliminary report.

The core of an ideal I in a Noetherian ring is the intersection of all ideals contained in I which have the same integral closure as I . The core of an ideal is an interesting object which appears naturally in the Briançon-Skoda theorem; is closely connected to adjoint/ multiplier ideals and coefficient ideals; and encodes information about the ideal itself and its possible reductions. However, the core is also difficult to describe explicitly, being by definition an infinite intersection of ideals. I will examine the properties of a class of ideals coming from graph theory, and show that there is a surprisingly simple formula for the cores of these ideals. (Received January 26, 2010)