

1135-13-213

**Chloe I. Avery\*** (cia@umail.ucsb.edu), **Caitlyn Booms**, **Timothy M. Kostolansky**, **S. Loepp** and **Alex Semendinger**. *Completions of Noncatenary Local UFDs*.

Let  $A$  be a local ring with maximal ideal  $M$  and let  $\hat{A}$  be the completion of  $A$  with respect to  $M$ . We call  $A$  catenary if, for every pair of prime ideals  $P$  and  $Q$ , all saturated chains of prime ideals between  $P$  and  $Q$  have the same length. It was conjectured in 1956 that noncatenary local UFDs do not exist. It was not until 1993 that Raymond C. Heitmann constructed an example of a noncatenary local UFD by considering the relationship between local UFDs and their completions. In this talk, we characterize completions of noncatenary local UFDs, and give illustrative examples. (Received August 11, 2017)