## 1090-13-272 Jim Coykendall\* (jim.coykendall@gmail.com), Department of Mathematics, North Dakota State University, Fargo, ND 58108-6050, and Tridib Dutta. Some near-Noetherian conditions. In this talk, we will be considering a couple of properties that mimic the Noetherian property. Let $I \subseteq R$ be an ideal of a ring (commutative with identity). We say that I is of strong finite type (SFT) if there is a finitely generated ideal $B \subseteq I$ and a fixed positive integer N such that $x^N \in B$ for all $x \in I$ . Additionally, we say that the ring R is SFT if every (prime) ideal of R has the SFT property. This property first surfaced in the 1973 work of J. Arnold on power series rings. In this context, it was shown that if R is not SFT, then dim $R[[x]] = \infty$ .

In a similar vein, we say that the ideal  $I \subseteq R$  is of very strong finite type (VSFT) if there is a finitely generated ideal  $B \subseteq I$  and a fixed positive integer N such that  $I^N \subseteq B$ , and we say that R is VSFT if every (prime) ideal is VSFT.

We investigate the interplay of these properties and their relationship to the Noetherianess that they emulate. (Received March 03, 2013)