1067-57-497      **Tim D Cochran**, **Shelly Harvey** and **Peter D Horn\*** (`pdhorn@math.columbia.edu`),
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*Filtering smooth concordance classes of topologically slice knots.* Preliminary report.

We define several new filtrations of the smooth knot concordance group $\mathcal{C}$. The n-negative filtration $\{\mathcal{N}_n\}$ and n-positive filtration $\{\mathcal{P}_n\}$ are monoid filtrations of $\mathcal{C}$, and their intersection $\{\mathcal{NP}_n\}$ (where $\mathcal{NP}_n := \mathcal{N}_n \cap \mathcal{P}_n$) is a group filtration of $\mathcal{C}$ that refines the n-solvable filtration defined by Cochran-Orr-Teichner. We will present examples of knots lying in various filtration level, discuss the filtration's relationship with known concordance invariants, and state our main results. (Received September 07, 2010)