1083-57-88    **Tim D Cochran** and **Peter D Horn\*** (`pdhorn@syr.edu`), Department of Mathematics, Syracuse University, 215 Carnegie Building, Syracuse, NY 13244-1150. *Topologically slice knots and bipolarity.*

Cochran, Harvey and the speaker introduced the *bipolar filtration* of the knot concordance group to organize the study of the group of topologically slice knots, $\mathcal{T}$. The filtration is decreasing $\mathcal{T} \supset \mathcal{T}_0 \supset \mathcal{T}_1 \supset \cdots \supset \mathcal{T}_n \supset \mathcal{T}_{n+1} \supset \cdots \supset \{0\}$. A knot which can be unknotted by certain crossing changes lies in $\mathcal{T}_0$ – the group of so-called 0-bipolar knots – though these examples do not account for all 0-bipolar knots. The concordance invariants $s$ and $\tau$ from Khovanov and Heegaard Floer homology must vanish for any 0-bipolar knot. Using $d$-invariants from Heegaard Floer homology, we show that the quotient group $\mathcal{T}_0/\mathcal{T}_1$ has infinite rank. (Received August 21, 2012)

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