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Alexandra Kjuchukova* (akjuchuk@nd.edu), akjuchuk@nd.edu, and **Allison N Miller**,
Arunima Ray and **Sumeyra Sakalli**. *Slicing knots in definite manifolds*.

A knot K is H-slice in a manifold X^4 if K bounds a smooth null-homologous disk in $X \setminus \mathring{B}^4$. Classifying knots which are H-slice in X can lead to detecting exotic smooth structures on X . Generalizing work of Owens, we give a criterion for a knot to be H-slice in $\#m\mathbb{C}P^2$. I'll illustrate how our theorem can be used to determine, for certain pretzels and alternating knots, for which values of m these knots are H-slice. (Received August 10, 2021)