

1135-VU-1496      **Jack Arndt\*** ([jack.arndt@my.simpson.edu](mailto:jack.arndt@my.simpson.edu)), 701 North C Street, Indianola, IA 50125, and  
**Malia Jansen** and **Payton McBurney**. *Investigating diagonal knot grid diagrams*. Preliminary  
report.

In 2003, Ozsváth, Szabó, and Rasmussen introduced the  $\tau$  invariant for knots, and in in 2011, Sarkar published a computational shortcut for the  $\tau$  invariant of knots that can be represented by diagonal grid diagrams. We show that all such knots are positive knots, and we conjecture that the set of these diagonal knots is equal to the set of positive braid knots. (Received September 22, 2017)