

1035-55-1205 **Matt Steinke*** (steink_m@denison.edu), 7181 Slayter Union, Denison University, Granville, OH 43023. *Arc presentations: A new way to look at knots.*

Take a knot and consider it as the finite union of arcs in the pages of an open book. Brunn first introduced this notion, known as the arc presentation of a knot, in the late 1800s. However, useful applications did not appear until the early 1990s, with the study of braid presentations for satellite links – prompting more focused study of the notion in its own right. In this talk, we will present my findings from my senior research. We will discuss the interesting combinatorial aspects of arc presentations as well as its relation to certain knot invariants such as bridge number, braid index, and stick number. This talk is intended for a general audience. (Received September 19, 2007)