

# Singular spanning discs, framing function of knots, and strength version of Dehn's lemma

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**Abstract.** Greene-Wiest introduced a framing function of  $K$  by counting the intersection of a singular disc spanned by  $K$ . In this talk we explain basics of framing functions emphasizing interactions with several aspects of knot theory. We show a lower bound of framing functions and as an application, we give a slightly generalized version of Dehn's lemma.