FAILURE OF MORTON-FRANKS-WILLIAMS INEQUALITY

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MFW inequality is an inequality which gives a lower bound for the braid index of a knot. It is a "wonderful thing" as V.F.R.Jones noted in one of his papers. Up to ten crossing number of knots, the inequality is sharp on all but only five. J.Birman and W.Menasco found an example of 6-braid template which produces infinitely many knots on which MFW inequality cannot be sharp. It has already been known, from their classification of 3-braids, that there is no such 3-braid template. In my talk, I will give an 5-braid template which carries a knot where MFW inequality is not sharp.

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