

Rectangular diagrams and Jones' conjecture I: monotonic simplification and Legendrian links

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I will overview our joint work with Maxim Prasolov in which we prove that a rectangular diagram (= a grid diagram without orientation) admits a monotonic simplification by elementary moves if and only if at least one of the two Legendrian links associated to the diagram admits a destabilisation. As a corollary we obtain Jones' conjecture that states that two braids representing the same oriented link type and having minimal braid index have the same writhe.