



Mathematics > Geometric Topology

Bypasses for rectangular diagrams

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(Submitted on 5 Jun 2012)

In the present paper a criteria for a rectangular diagram to admit a simplification is given in terms of Legendrian knots. It is shown that there are two types of simplifications which are mutually independent in a sense. A new proof of the monotonic simplification theorem for the unknot is given. It is shown that a minimal rectangular diagram maximizes the Thurston--Bennequin number for the corresponding Legendrian links. Jones' conjecture about the invariance of the algebraic number of intersections of a minimal braid representing a fixed link type is proved.

Comments: 48 pages, 61 Figures
 Subjects: **Geometric Topology (math.GT)**
 MSC classes: 57M25
 Cite as: **arXiv:1206.0898 [math.GT]**
 (or **arXiv:1206.0898v1 [math.GT]** for this version)

Submission history

From: Ivan A. Dynnikov [[view email](#)]
 [v1] Tue, 5 Jun 2012 12:24:01 GMT (531kb)

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