

Knot at Lunch for January 19: What's missing in the Aarhus Story

January-15-15 1:34 PM

- 0. This remains an informal partially-social gathering.
- 1. The projectivization paradigm.

Dror Bar-Natan: Talks: MSRI-0808:

Projectivization, w-Knots, Kashiwara-Vergne and A

The Categorification Speculative Paradigm.

- Every object in math is the Euler characteristic of a complex.
- Every operation in math lifts to an operation between complexes.
- Every identity in mathematics is true up to homotopy.

The Projectivization Tentative Speculative Paradigm. Projectivization?

- Every graded algebraic structure in mathematics is the projectivization of a plain ("global") one.
- Every equation written in a graded algebraic structure is an equation for a homomorphic expansion, or for an automorphism of such.

- 2. The Aarhus integral. } secret dreams: say something about Aarhus in Aarhus 2015

one line

From Appleboim's paper:

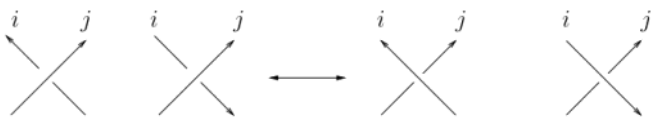


Figure 1. A DD-crossing change



Figure 2. A Λ -crossing change

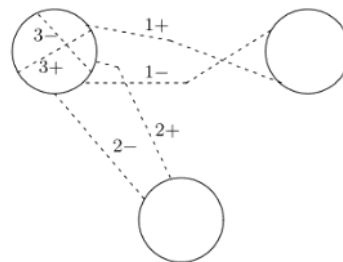
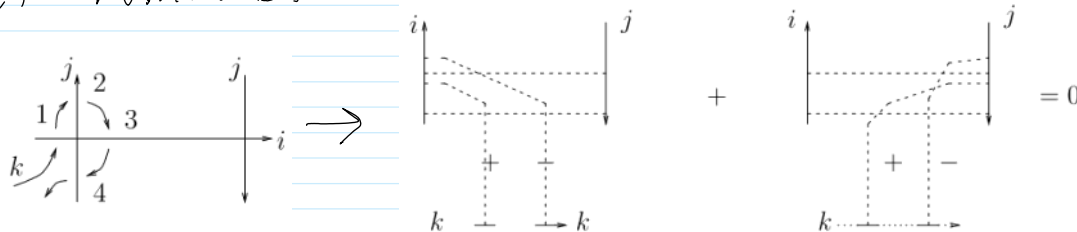


Figure 3. A double dating diagram

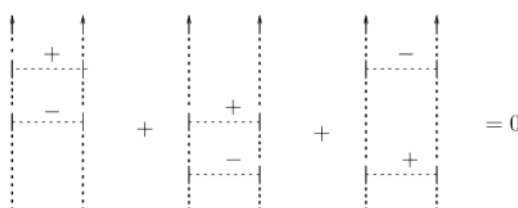


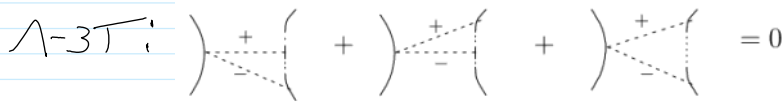
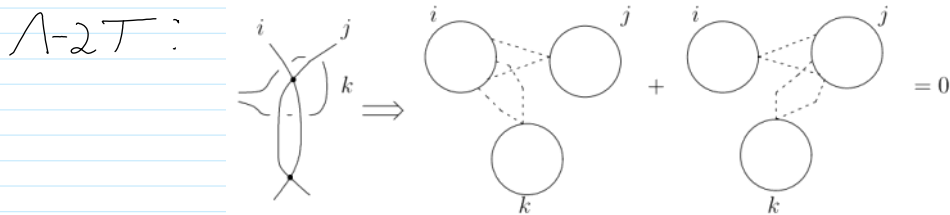
Figure 8. A Λ -diagram

2T-relations:

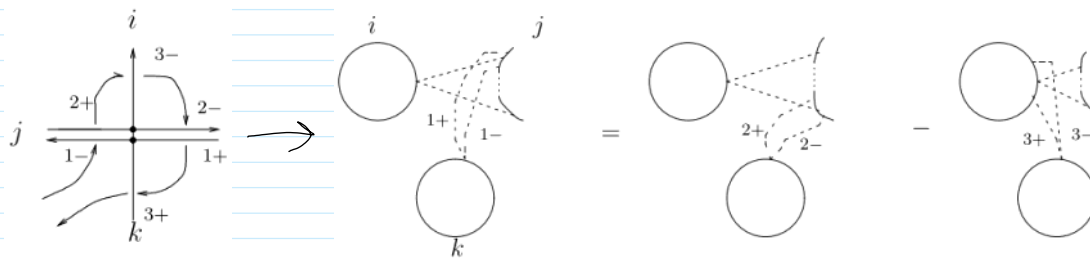
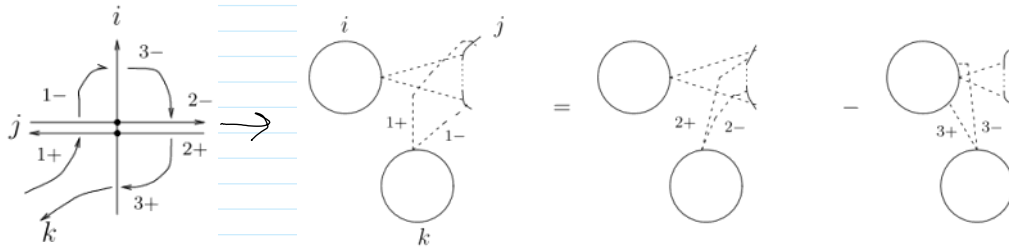


3T-relations:

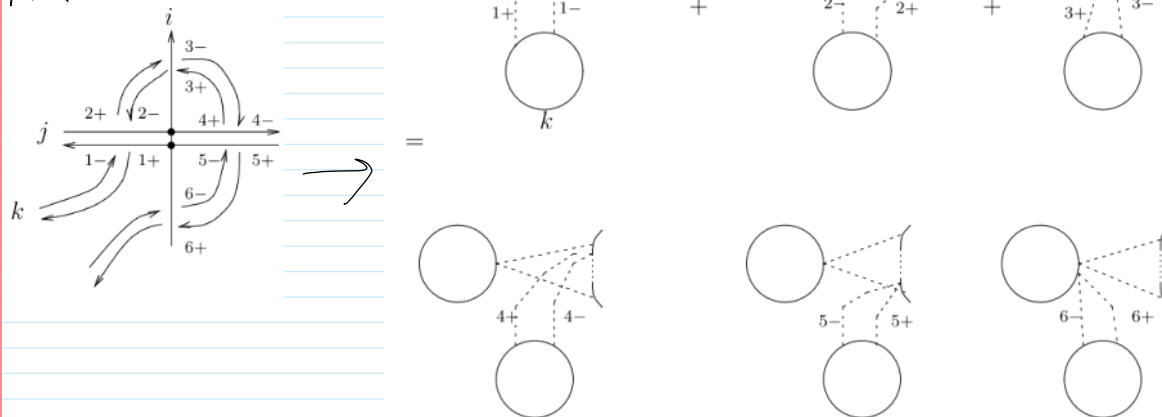




Interchange relations:



Wood Pecker Relation:



Thm The obvious $A^1 \rightarrow A^{DD}$ is an isomorphism. Verify!

Thm The image of A^1 in A^C is $A^{chordless} =: A^{C \setminus C}$