Dror Bar-Natan: Talks: Vienna-1402:
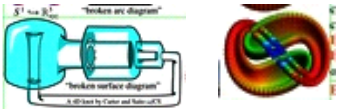ω :=http://www.math.toronto.edu/~drorbn/Talks/Vienna-1402

A Partial Reduction of BF Theory to Combinatorics

Abstract. I will describe a nearly-rigorous reduction to computable combinatorics of perturbative BF theory (Cattaneo-Rossi arXiv:math-ph/0210037), in the case of ribbon 2-links. Also, I will explain how and why my approach may or may not work in the non-ribbon case. Weak this result is, and at least partially already known (Watanabe arXiv:math/0609742). Yet in the ribbon case, the resulting invariant is a universal finite type invariant, a gadget that significantly generalizes and clarifies the Alexander polynomial and that is closely related to the Kashiwara-Vergne problem. I cannot rule out the possibility that the corresponding gadget in the non-ribbon case will be as interesting.

To do:
- ✓ ∗ BF box
- ✓ ∗ std. perturbation theory box.
- ∗ A word about axial gauge.
- ✓ ∗ decker set def box (3 generating figures, the x/gg)
- ∗ decker set examples:
  -
  - some example with triple points
- ✓ ∗ decker set moves.

References...