

# 18S-AKT Who did what?

August 26, 2018 2:24 PM

Annotations by <http://drorbn.net/index.php?title=Special:Contributions/Cameron.martin>:

- 1M - The number of legal 3-colorings of a knot diagram is always a power of 3.
- 1M - Failures of the colouring number.
- 2F - The "power line" problem.
- 2F - details for solving the classical harmonic oscillator.
- 3M - A word on virtual knots.
- 3M - Typo corrected.
- 4M - The Gauss diagram of a knot.
- 4M - Finite type invariants of braids.
- 7M - Jacobi for the 2D Lie algebra.
- 9M - A detailed note on the  $\mathfrak{so}(N)$  weight system.

Annotations by [http://drorbn.net/index.php?title=User:Leo\\_algknt](http://drorbn.net/index.php?title=User:Leo_algknt):

- 1M - The number of legal 3-colorings of a knot diagram is always a power of 3, using linear algebra.
- 1W - The linking-number-sum is divisible by 2.
- 1W - Question on the Gauss map of the unknot.
- 1F - "What is quantum mechanics?"
- 1F - "Lagrangian Mechanics".
- 1F - "The Principle of Least Action".
- 2W - Questions about "diagonal".
- 2W - "Configuration Spaces".
- 3M - Similarity of Jones and Alexander.
- 3W - Question about swaddling maps.
- 3F - Completing the square.
- 3F - A question about  $\varphi_1 \Lambda^{-1} \varphi_2$ .
- 4M - Is  $K \mapsto D_K$  injective?
- 4W - Proof of the equality of self-linking rel framing and rel swaddling.
- 5W - Configurations and injections.
- 5W - Q/A about  $C_A(M)$ .
- 5F - Gauge invariance of  $A \wedge dA$ .
- 6M - Question: Why trivalent?
- 6W - Q about rotations.
- 6F - a bit on differential forms on  $\mathbb{R}^3$ .
- 7M - 1D a 2D Lie algebras.
- 7F - The gauge action is a group action.
- 8M - Evaluation  $W_{\text{frakg}}$  on the diagram  $I$ .
- 8W -  $(\ker f)^* = V^* \oplus \mathfrak{im} f^*$ .

Annotations by <http://drorbn.net/index.php?title=Special:Contributions/Donghao.ouyang>:

- 1W - Answers question re. the Gauss map of the unknot.
- 2F - Deriving Euler-Lagrange.
- 2F - The Brachistochrone.
- 8M - The cyclic property of the structure constants.

Annotations by <http://drorbn.net/index.php?title=Special:Contributions/Gavin.hurd>:

- 2M - Two knots with the same Jones poly.
- 6M - STU implies IHX.
- 7F - a Leibnitz property for covariant differentiation.
- 8F - Gauge invariance of CS.
- 11M -  $\text{Box}$  is well-defined on  $\mathcal{A}$ .