<table>
<thead>
<tr>
<th><strong>u-knots</strong></th>
<th><strong>v-knots</strong></th>
<th><strong>w-knots</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Knots are virtual knots:</td>
<td>4 [ w \text{-knots} = v \text{-knots} \text{ (OCC)} ]</td>
<td></td>
</tr>
<tr>
<td>[ v \text{-knots} } ]</td>
<td>where ( \text{OCC} ) is Overcrossings Commute:</td>
<td></td>
</tr>
</tbody>
</table>

**Combinatorics**

- Similar with enriched Lie algebras replacing arbitrary Lie algebras
- Similar with Lie bialgebras replacing arbitrary Lie algebras

**Low algebra**

- Theorem. Given a finite dimensional Lie algebra \( g \), there is a formula for the Lie algebra \( \mathfrak{g} \).

**High algebra**

- Theorem. \( Z \) is a Quantum Group.
- More precisely, a homomorphic \( Z \) is equivalent to the Etingof-Kazhdan theory of deformation quantization of Lie bialgebras.

**Mathematical Structures**

- \( z \) is a Quantum Group?
-

**Remark**

- Switch to \( w \)-knotted tridend tangles.
- \( \text{wKTT} = \text{CA} \) for \( \text{CA} \).
- \( \text{wKTT} = (\text{CA} \cup \text{X}) \).
- \( \text{wKTT} = (\text{Fun}(\mathbb{G})) \).
- \( \text{wKTT} = (\text{Fun}(\mathbb{G})) \).

**Analytical Notes**

- Closely related to the "what method of representation theory?"